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CATALOGUE

OF

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CATALOGUE

OF

TUFTS COLLEGE.

1891-92.

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University Press.
1892.

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Calendar.

1891.

Sept. 17.	College Year begins, Thursday morning.
Oct. 25.	Russell Lecture, Sunday 4 P. M.
Nov. 1.	Limit of time for applying for Scholarships.
Dec. 23.	Christmas Recess begins, Wednesday Evening.

1892.

Jan. 6.	Christmas Recess ends, Wednesday Evening.
Jan. 30.	Limit of time for reporting Electives.
Feb. 6.	First term ends, Saturday.
May 31.	Prize Reading in the Divinity School.
June 7.	Prize Reading in the College of Letters.
June 10.	Class Day, Friday.
June 12.	Baccalaureate Sermon, Sunday 4 P. M.
June 15.	Commencement, Wednesday.
June 16.	Examination for Admission begins, Thursday 9 A. M.

Summer Vacation, Fourteen Weeks.

Sept. 20.	Second Examination for Admission, Tuesday 9 A. M.
Sept. 21.	Examination for Admission to Divinity School.
Sept. 22.	College Year begins, Thursday morning.
Sept. 24.	Limit of time for reporting Electives.
Sept. 25.	Russell Lecture, Sunday 4 P. M.

Tufts College is situated at College Hill, four miles from Boston, on the Lowell division of the Boston and Maine Railroad. The Post Office Address is — Tufts College, Mass.

Tufts College.

TUFTS COLLEGE owes its inception immediately to an effort, under the direction of the Rev. Otis A. Skinner of Boston, to raise one hundred thousand dollars for its foundation. About sixty thousand dollars was obtained in money; the subscription was completed by Sylvanus Packard giving his bond for twenty thousand dollars, and by Charles Tufts making a donation of twenty acres of land embracing the present site of the College. The latter announced his intention to increase his gift of land to more than one hundred acres, and thus became the largest benefactor at the start. It was determined, therefore, that the institution should receive his name. Mr. Packard was a Boston merchant, who from the beginning made the College a peculiar care. Dying, he bequeathed to it his entire fortune, the same being the largest gift it has yet received from a single individual. Among other benefactors deserving mention, associated with those who may be styled the founders of the College, were Oliver Dean, who gave it ninety thousand dollars, and Thomas A. Goddard, whose gifts, though unobtrusive, were constant, and whose widow has continued the generosity of her husband. Dr. William J. Walker came soon after with gifts and bequests amounting to nearly three hundred thousand dollars.

The charter under which, with slight changes, the College has been developed, was granted April 21, 1852. Students were first formally admitted in 1855. The first class, consisting of three members, was graduated in 1857. At the outset provision was made only for a course of study leading to the degree of Bachelor of Arts; but some unclassified students were in attendance constantly. It seemed desirable, therefore, to lay out courses for those who had been prepared only in English subjects. In 1866 the degree of Bachelor of Philosophy was offered to those who should pursue a prescribed course covering two years. This course continued until 1875, when it was

changed to a course of four years. The requirements for admission were then made the same as for the regular course, except that Greek as a condition of entrance was omitted, and an amount of work in a modern language, considerably less than its equivalent, was substituted. In the present catalogue a new course of study, leading to the degree of Bachelor of Arts, is offered for the first time, for which an entrance requirement, believed to be fully the equivalent of the Greek, is demanded in two modern languages. A department of Civil Engineering was also organized in 1869, and opportunity was offered for instruction in the branches pertaining to that subject. A course of study in Electrical Engineering was opened to students in 1883, and a professorship of the subject was established in 1890. The will of Mr. Packard required that a professor of Christian Theology should be maintained from the income of funds bequeathed by him. The Rev. THOMAS J. SAWYER, D. D., was elected Packard Professor in 1869. This was the beginning of the Divinity School. In 1883 the late PHINEAS T. BARNUM gave fifty-five thousand dollars for the establishment of the Barnum Museum of Natural History, and by his last will he bequeathed forty thousand dollars more. The first President was the Rev. HOSEA BALLOU 2d, D. D., who held office from the opening of the College until his death in 1861. His successor, the Rev. ALONZO AMES MINER, D. D., LL.D., was inaugurated in 1862, and continued in office until his resignation in February, 1875. The present incumbent was chosen in April of the same year.

The College Charter.

SECTION 1. B. B. Mussey, Timothy Cotting, Richard Frothingham, Jr., their associates and successors, are hereby constituted a body corporate by the name of the Trustees of Tufts College, in Medford, and they and their successors, and such as shall be duly elected members of said corporation, shall be and remain a body corporate by that name forever. And for the orderly conducting of the business of said corporation, the said trustees shall have power and authority, from time to time, as occasion may require, to elect a President, Vice-president, Secretary, and Treasurer, and such other officers of said corporation as may be found necessary, and to declare the duties and tenures of their respective offices; and also to remove any trustee from the same corporation, when, in their judgment, he shall be rendered incapable, by age, or otherwise, of discharging the duties of his office, or shall neglect or refuse to perform the same; and also, from time to time, to elect new members of the said corporation; provided, nevertheless, that the number of members shall never be greater than thirty.

SECTION 2. The said corporation shall have full power and authority to determine at what times and places their meetings shall be holden, and the manner of notifying the trustees to convene at such meetings, and also, from time to time to elect a President of said College, and such professors, tutors, instructors, and other officers of the said College, as they shall judge most for the interest thereof, and to determine the duties, salaries, emoluments, responsibilities, and tenures of their several offices. And the said corporation are further empowered to purchase or erect, and keep in repair, such houses and other buildings as they shall judge necessary for the said College; and also to make and ordain, as occasion may require, reasonable rules, orders, and by-laws, not repugnant to the constitution and laws of this Commonwealth, with reasonable penalties for the good government of the said College, and for the regulation of their own body, and also to determine and regulate the course of instruction in said College, and to confer such degrees as are usually conferred by colleges in New England; provided, nevertheless, that no corporate business shall be transacted at any meeting unless one-third, at least, of the trustees are present.

SECTION 3. The said corporation may have a common seal, which they may alter or renew at their pleasure, and all deeds sealed with the seal of said corporation, and signed by their order, shall, when made in their corporate name, be considered in law as the deeds of said corporation; and said corporation may sue and be sued in all actions, real, personal, or mixed, and may prosecute the same to final judgment and execution by the name of the Trustees of Tufts College; and said corporation shall be capable of taking and holding in fee simple, or any less estate, by gift, grant, bequest, devise, or otherwise, any lands, tenements, or other estate, real or personal; provided, that the clear annual income of the same shall not exceed two hundred thousand dollars.

SECTION 4. The clear rents and profits of all the estate, real and personal, of which the said corporation shall be seized and possessed, shall be appropriated to the endowment of said College, in such manner as shall most effectually promote virtue and piety, and learning in such of the languages, and of the liberal and useful arts, and sciences, as shall be recommended from time to time by the said corporation, they conforming to the will of any donor or donors in the application of any estate which may be given, devised, or bequeathed, for any particular object connected with the College.

SECTION 5. No instructor in said College shall ever be required by the Trustees to profess any particular religious opinions as a test of office, and no student shall be refused admission to or denied any of the privileges, honors, or degrees of said College, on account of the religious opinions he may entertain.

SECTION 6. The legislature of this Commonwealth may grant any further powers to, or alter, limit, annul, or restrain, any of the powers vested by this act in the said corporation, as shall be found necessary to promote the best interests of the said College, and more especially may appoint and establish overseers or visitors of the said College, with all necessary powers for the better aid, preservation, and government thereof.

SECTION 7. The granting of this Charter shall never be considered as any pledge on the part of the Government, that pecuniary aid shall hereafter be granted to the College.

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BENJAMIN G. BROWN, A.M.,
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Professor of English Literature and Oratory.

ANSON B. CURTIS, PH. D.,
Instructor in Hebrew.

FRANK W. DURKEE, A.M.,
Instructor in Chemistry and Natural History.

FRANK P. GRAVES, A.M.,
Instructor in Greek.

FRANK E. SANBORN, S.B.,
Walker Special Instructor in Mathematics.

WILLIS F. SEWALL, A.B.,
Assistant in French and English.

FRANK T. DANIELS, A.M.B.,
Assistant in Drawing and Surveying.

Non-Resident Lecturers.

ALFRED P. PUTNAM, D.D.,
Lecturer on the History of Bible Lands.

HENRY I. CUSHMAN, D.D.,
Lecturer on Methods of Biblical Study.

ARTHUR G. ROGERS, A.M.,
Lecturer on the Work of the Ministry.

GILBERT HODGES, C.E.,
Lecturer on Economics of Street Railways.

HENRY C. BUCK, A.M.,
Lecturer on Business Principles as applied in Mechanical and Electrical Engineering.

FREDERICK S. PEARSON, A.M.M.,
Lecturer on Central Power Stations.

HELEN L. MELLEN,
Librarian.

WILLIS F. SEWALL, A.B.,
Assistant in the Library.

FRANK W. DURKEE, A.M.,
Director of the Gymnasium.

S. THOMAS KIRK,
Director in Woodworking.

CHARLES R. GRAY,
Superintendent of Buildings.

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WILLIAM L. HOOPER, A.M.
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FRANK W. DURKEE, A.M.
FRANK P. GRAVES, A.M.
FRANK E. SANBORN, S.B.

Candidates for the Degree of Master of Arts.

BATEMAN, FRANK ELLIOTT, '87 . . . . . *Boston.*
(*History and Natural History.*)

HATHAWAY, CHARLES AUGUSTUS, '90 . . . . . *Stamford, Conn.*
(*Geology and Latin.*)

MCCOLLESTER, LEE SULLIVAN, '81 . . . . . *Detroit, Mich.*
(*English Literature and Church History.*)

NEWTON, ELBRIDGE WARD, '90 . . . . . *New Market, N. H.*
(*English Literature and History.*)

PROUTY, WILLIS JAMES, '87 . . . . . *Meriden, Conn.*
(*Latin and Mathematics.*)

STONE, HENRY BEECHER, '86 . . . . . *Deering, Me.*
(*Natural History and Physics.*)

TOWLE, GEORGE GILMAN, '91 . . . . . *Dover, N. H.*
(*Greek and Latin.*)

TUTTLE, HIRAM AUSTIN, '91 . . . . . *Barre, Vt.*
(*Classical Philology.*)

Undergraduates.

CLASSICAL AND PHILOSOPHICAL COURSES.

Senior Class.

Arnold, George Allen	*Braintree*	East Hall, 18.
Brooks, Maro Spaulding	*Hancock, N. H.*	East Hall, 18.
Carter, Horace Choate	*Springfield,*	West Hall, 16.
Cobb, Joseph Fernald	*Deering, Me.*	Mid. Hall, 9.
Gray, William Southwick	*West Somerville*	West Hall, 1.
Johnson, Melvin Maynard	*Waltham*	Dean Hall, 10.
Kimball, Fred Elbert	*Burlington, Vt.*	West Hall, 9.
Libby, Wentworth Roscoe	*Blue Island, Ill.*	Blue Island, Ill.
Lyon, Fred Dow	*Poland, Me.*	Dean Hall, 13.
Märggraf, Edward Everett	*Caledonia, O.*	Mid. Hall, 6.
North, Frank Allen	*Boston*	Dean Hall, 10.
Perry, Henry Joseph	*Fort Plain, N. Y.*	West Hall, 1.
Peterson, Arthur Everett	*Monson*	West Hall, 1.
Putnam, Bertrand Flavel	*New Salem*	Dean Hall, 2.
Randall, Arthur Gile	*North Attleboro*	Dean Hall, 13.
Williams, Loring George	*Nottingham, N. H.*	Dean Hall, 14.
Willis, Charles Austin	*Waltham*	Dean Hall, 5.
Willis, Dwight Fletcher	*Waltham*	Dean Hall, 5.

Junior Class.

Arnold, Louis Wales	*Braintree*	East Hall, 18.
DeGoosh, Arthur Winfield	*Bradford, Vt.*	Dean Hall, 6.
Grece, Joseph Byron	*Roxbury*	Dean Hall, 12.
Kipp, Charles Goodhue	*New York, N. Y.*	54 Curtis St.
Martin, Willard Shepard	*Plainfield, Vt.*	Dean Hall, 6.
Spaulding, Harris Waldemar	*Haverhill*	Dean Hall, 11.
Thompson, Alfred Percival	*Middleboro*	West Hall, 7.
Watson, Frederick Cushman	*Auburn, Me.*	102 Curtis St.

Sophomore Class.

Benton, Herbert Elmon	*Annisquam*	West Hall, 11.
Eastwood, James Stewart	*West Brattleboro, Vt.*	East Hall, 31.
Flynn, John William	*Rockland*	East Hall, 30.

Goodrich, William Henry	*Fitchburg*	Dean Hall, 3.
Hicks, Blanchard Fossett	*Rockland, Me.*	West Hall, 14.
Hodgdon, Fred Crosby	*Waltham*	East Hall, 16.
Leighton, Virgil Louis	*West Falmouth, Me.*	West Hall, 11.
Small, Willard Stanton	*Provincetown*	West Hall, 4.
Snow, Charles Joseph	*Haverhill*	Dean Hall, 11.
Stroud, Charles Crawford	*Grosvenordale*	East Hall, 23.
Wade, Charles St. Clair	*West Somerville*	East Hall, 16.
Walker, Fred Storer	*Westbrook, Me.*	East Hall, 31.
Webster, Fred Henry	*Haverhill*	West Hall, 3.
Whittemore, Thomas	*Cambridge*	Dean Hall, 12.
Wren, Frank George	*Roslindale*	East Hall, 30.

Flynn, William Andrew	*Rockland*	East Hall, 30.
Lambert, Fred Dayton	*Muscatine, Ia.*	154 Boston Ave.

Freshman Class.

Averell, Eugene	*Lynn*	Dean Hall, 1.
Barney, Charles Neal	*Lynn*	East Hall, 25.
Chessmore, Frank Harding	*Jonesville, Vt.*	West Hall, 12.
Clark, Charles Dow	*St. Albans, Vt.*	East Hall, 9.
Clarke, Edward Perkins	*Mystic, Conn.*	80 Professors Row.
Craig, Edward Channing	*Franklin*	West Hall, 11.
Darling, Charles Poché	*Roxbury*	East Hall, 26.
Dunham, William Roger	*Barre, Vt.*	West Hall, 12.
Eaton, Clarence Livingstone	*Weymouth*	West Hall, 2.
Emery, William Gordon	*Bridgeport, Conn.*	East Hall, 10.
Fobes, Harold Bartlett	*Portland, Me.*	West Hall, 6.
Folsom, Harry Charles	*Oakland, Me.*	West Hall, 6.
Frank, Henry Pennell,	*Portland, Me.*	Dean Hall, 9.
George, Bert Dutton	*East Calais, Vt.*	West Hall, 13.
Godfrey, William Hollis	*Lynn*	Dean Hall, 1.
Ireland, George Preston	*Springfield*	West Hall, 16.
King, Charles Guy	*Mattapan*	East Hall, 28.
Larrabee, Frank Philip	*Portland, Me.*	East Hall, 11.
Lynde, Frank Martin	*Williamstown, Vt.*	West Hall, 13.
Nason, Daniel White	*Bangor, Me.*	East Hall, 8.
Ricketts, Charles Lucius	*Monson*	East Hall, 26.
Saunders, Joseph Henry	*Everett*	West Hall, 14.
Sheldon, James Fitts	*Haverhill*	102 Curtis St.

Small, William Morton	*Baldwinville*	West Hall, 12.
Smith, Robert Baxter	*No. Tunbridge, Vt.*	Mid. Hall, 7.
Thompson, Fred Everett	*Bangor, Me.*	East Hall, 8.
Whitehorne, William Risby	*W. Somerville*	Mid. Hall, 9.

ENGINEERING COURSES.

Third Year.

Curtiss, Wooster Blake	*Medford*	East Hall, 13.
Doane, Francis Hathaway	*Newtonville*	West Hall, 10.
Dolbear, Clinton Emerson	*College Hill*	134 Professors Row.
Edmands, Isaac Russell	*Providence, R. I.*	East Hall, 19.
Edson, Howard Lincoln	*Braintree*	Dean Hall, 14.
Hardwick, Joseph	*Lempster, N. H.*	Mid. Hall, 10.
Hollister, John Murray	*Plainfield, Vt.*	West Hall, 9.
Hosford, Frederick William	*Medford*	Mid. Hall, 10.
Hunt, Edward Jarvis	*Bangor, Me.*	Dean Hall, 4.
Kennedy, Alfred Warren	*South Medford*	Mid. Hall, 11.
Swain, Henry Sumner	*Boston*	East Hall, 19.
Thayer, Albert Oliver	*West Somerville*	205 Holland St.
Wilson, Louis Melvin	*Rowe*	Mid. Hall, 11.
Wing, Frank Augustus	*West Somerville*	Mid. Hall, 5.

Second Year.

Aldrich, Frank Lawson	*Thompson, Conn.*	East Hall, 23.
Bates, George Moulton	*Waltham*	Dean Hall, 3.
Chase, Harry Gray	*West Newbury*	Dean Hall, 2.
Cushman, Ara, Jr.	*Auburn, Me.*	Dean Hall, 7.
Gow, Charles Rice	*Medford*	East Hall, 22.
Johnston, Chesley Metcalf	*Bangor, Me.*	East Hall, 6.
Lane, Arthur Kempton	*Boston*	Dean Hall, 8.
Neal, John Alden	*Wiscasset, Me.*	West Hall, 2.
Peakes, Henry Allen	*Moore's Mills, N. B.*	East Hall, 6.
Robinson, Harry Orman	*Bangor, Me.*	East Hall, 22.
Russ, Wilfred Wesley	*Haverhill*	Dean Hall, 7.
Shaw, Stillman	*Woburn*	West Hall, 7.
Smith, Phil Sheridan	*No. Tunbridge, Vt.*	Mid. Hall, 7.
Strong, George Edward	*Gloucester*	East Hall, 6.
Weston, Howard Hanchett	*Somerville*	East Hall, 16.

First Year.

Byrne, Edward Patrick	*Medford*	15 Stearns Ave.
Clement, Sumner	*Newton Centre*	West Hall, 10.
Cropley, Eugene Irving	*Marblehead*	Dean Hall, 8.
Dresser, Walter Prescott	*Fitchburg*	West Hall, 3.
Foss, Hubert Collamore	*Bangor, Me.*	East Hall, 8.
George, Arthur Lincoln	*Lebanon, N. H.*	Dean Hall, 9.
Hathaway, Carl Voltaire	*South Cabot, Vt.*	West Hall, 14.
Hersey, Isaac Burrill	*Hingham*	East Hall, 15.
Homer, George Gray	*Arlington*	West Hall, 7.
Lawton, Frank Edson	*Mt. Vernon, N. Y.*	East Hall, 15.
Livermore, Harry Brigham	*Brighton*	Mid. Hall, 12.
McDavitt, John Olin	*Lawrence*	East Hall, 14.
McKenzie, Archibald	*Woodstock, Vt.*	West Hall, 8.
Morrison, Adelbert Harland	*Lawrence*	East Hall, 14.
Morse, Robert Henry	*Norwood*	West Hall, 8.
Pember, Frederick Howard	*Peabody*	East Hall, 9.
Read, Rufus Curtis	*Attleborough*	East Hall, 10.
Spalding, Samuel Albert	*Danvers*	West Hall, 4.
Walkley, James Arthur	*Brighton*	Mid. Hall, 12.
Ward, George Allen	*Barre, Vt.*	West Hall, 13.
Whitney, Orville Jophanus	*Medford*	East Hall, 13.
Wills, Albert Potter	*Waltham*	East Hall, 27.

Brothers, George Arthur	*Lowell*	East Hall, 5.
Curtis, George Carroll	*Brooklyn, N. Y.*	East Hall, 11.
Mallett, John Purington	*Topsham, Me.*	East Hall, 28.
Page, Charles Harrison	*Lowell*	East Hall, 5.
Perkins, Sprague Hamilton	*Roxbury*	58 St. James St., Roxbury.
Wright, Edward Hanscom	*Charlestown*	East Hall, 5.

SPECIAL STUDENTS.

Hawkins, Walter Stanley	*Stoneham*	Dean Hall, 4.
Rogers, Louis Albert	*Salem*	West Hall, 8.
Todd, William Robert	*Lynn*	Mid. Hall, 6.

Summary.

Classical and Philosophical Courses.		
Graduates		8
Seniors	18	
Juniors	8	
Sophomores	17	
Freshmen	27	
		— 70
Engineering Courses.		
Third Year	14	
Second Year	16	
First Year	27	
		— 57
Special Students		3
Total in College of Letters		138
Divinity School		38
		176

Requirements for Admission.

Candidates for admission to the Freshman Class will be examined upon the following studies : —

CLASSICAL COURSES.

1. Latin Grammar. — Allen and Greenough's or Harkness's Grammar, including Prosody.

2. Cæsar. — Gallic War, Books I–IV.

3. Cicero. — Orations against Catiline, for Archias, Marcellus, and the Manilian Law.

4. Virgil. — Aeneid, Books I–VI.

5. Ovid. — Metamorphoses, 2500 lines.

6. Latin Composition. — Harkness's Latin Composition to Part III., and translation into Latin of a connected passage of English prose, not taken from the text-book, but involving only familiar words and idioms.

Alternatives. — While the foregoing requirements are preferred, equivalents will be accepted; also in place of the last two orations of Cicero and requirement 5, an examination may be taken, if desired, on average passages from the above-named works, not included in the portions prescribed.

7. Greek Grammar. — Hadley's, Crosby's, Curtius's or Goodwin's Greek Grammar, including Prosody.

8. Xenophon. — Anabasis, four books.

9. Homer. — Iliad, three books.

10 Greek Composition. — The translation of simple English prose into Greek.

Alternatives. — In place of requirements 8 and 9, translation at sight of easy passages of the Anabasis and average passages from the Iliad (with a vocabulary of the less used words).

In place of the requirements in Greek (7, 8, 9, and 10), the following requirements in Advanced German *or* French may be substituted : —

Advanced German : —

(1.) Proficiency in more advanced grammar. In addition to a thorough knowledge of accidence (including the elements of word-formation), and of the principal values of prepositions and conjunctions, the candidate must be familiar with the essentials of German syntax, — particularly that of the modal auxiliaries and the subjunctive and infinitive modes.

(2.) Ability to translate ordinary German, to be acquired by the reading, in addition to the elementary requirement, of the following works: *Der Fluch der Schönheit* (Riehl); *Aus dem Staat Friedrichs des Grossen* (Freytag); *Die Harzreise* (Heine); the first three books of *Dichtung und Wahrheit* (Göthe); *Minna von Barnhelm* (Lessing); *Wilhelm Tell* and *Das Lied von der Glocke* (Schiller); and thirty pages of lyrics or ballads.

(3.) Ability to write in German a paragraph upon an assigned subject, chosen from the works specified in the preceding section.

[While it is assumed that examiners would avoid setting as subjects for composition matters of very subordinate interest or of minor detail, it is hoped that teachers may be led by this requirement to stimulate from the beginning the pupil's interest in the subject matter of the works read in preparation.]

Advanced French: —

(1.) Proficiency in more advanced grammar. In addition to a knowledge of the accidence, and of the values of prepositions and conjunctions, the candidate must be familiar with the essentials of French syntax, — especially the use of modes and tenses, — and with the more frequently recurring idiomatic phrases.

(2.) Ability to translate standard French, to be acquired by reading, in addition to the elementary requirement, not less than one thousand duodecimo pages, including *Le siège de Berlin* and *La dernière classe* (Daudet); *Colomba* (Mérimée); *Mademoiselle de la Seiglière*, the play (Saudeau); *Jeanne Darc* (Henri Martin); and one play each of Corneille, Racine, and Molière.

(3.) Ability to write in French a paragraph upon an assigned subject chosen from the works specified in the preceding section.

[See note under Advanced German, § 3.]

Those presenting Elementary French must present Advanced German, and *vice versa*.

All candidates will also be examined in Elementary German *or* French: —

11 *a*. Elementary German: —

(1.) Proficiency in elementary grammar; implying, especially, familiarity with the following topics: declension of such nouns as are readily classified, of adjectives, and pronouns; conjugation of weak, and of the more usual strong verbs; the more common prepositions; the simpler uses of the modal auxiliaries; the simpler rules of syntax and of word order.

[This specification of topics is not proposed as restrictive, but rather to emphasize the importance of a thorough grounding of the pupil in those elements on which later good work is necessarily founded. Proficiency in grammar may be tested both by direct questioning and through translation of simple English into German.

(2.) Ability to translate a passage of simple prose at sight, — a vocabulary of the less used words being furnished.

[It is believed that the requisite facility can be acquired by reading, concurrently with the work in the grammar, from one hundred and fifty to two hundred duodecimo pages of easy German, chiefly narrative prose, with a few lyric poems.]

(3.) Ability to pronounce German, and to recognize German words and simple phrases when uttered.

[It is recommended that careful attention be given from the beginning to the fluent and intelligent reading aloud of the German works used in the class-room.

11 *b*. Elementary French : —

(1.) Proficiency in elementary grammar, — implying, especially, familiarity with the following topics : inflection of nouns and adjectives for gender and number, excepting unusual cases; the "pronominal adjectives;" the use of pronouns, especially the forms and positions of personal pronouns; the partitive constructions; the inflection of the regular, and the more usual irregular verbs, — such as *dire*, *faire*, and the classes represented by *ouvrir*, *sentir*, *venir*, *paraître*, *conduire*, and *craindre*.

[See note under Elementary German, § 1.]

(2.) Ability to translate simple prose at sight.

[It is believed that the requisite facility can be acquired by reading, concurrently with the work in the grammar, from two hundred to four hundred duodecimo pages from at least three dissimilar works.]

(3.) Ability to pronounce French, and to recognize French words and simple phrases when uttered.

[See note under Elementary German, § 3.]

12. Arithmetic — including the Metric System.

13. Algebra — through quadratic equations, including radical quantities, together with proportion, arithmetical and geometrical progression, and the binomial theorem for positive integral exponents.

14. Plane Geometry.

15. Ancient Geography and History. — Outlines of ancient geography; Smith's Smaller History of Greece, to the death of Alexander; Allen's History of Rome.

16. English Grammar and Composition. — Spelling, punctuation, structure of sentences; correct use of words; clearness of expression.

The examination will consist (1) in criticising specimens of incorrect English; (2) in writing a short composition on a subject assigned. Subject for composition will be drawn from the following standard works in English literature. All the books named for the given year are to be read,

and, from two or three of them, subjects will be assigned at the time of examination.

For 1892. — Shakspeare's Julius Cæsar and As You Like It; Scott's Marmion; Longfellow's Courtship of Miles Standish; The Sir Roger de Coverley Papers in the *Spectator;* Macaulay's second Essay on the Earl of Chatham; Webster's first Bunker Hill Oration; Irving's Alhambra; Scott's Talisman; George Eliot's Scenes from Clerical Life; Hawthorne's House of the Seven Gables.

For 1893. — Shakspeare's Julius Cæsar and Twelfth Night; Scott's Marmion; Longfellow's Courtship of Miles Standish; The Sir Roger de Coverley Papers in the *Spectator;* Macaulay's second Essay on the Earl of Chatham; Emerson's American Scholar; Irving's Sketch Book; Scott's Ivanhoe.

For 1894. — Shakspeare's Julius Cæsar and Merchant of Venice; Scott's Lady of the Lake; Arnold's Sohrab and Rustum; The Sir Roger de Coverley Papers in the Spectator; Macaulay's second Essay on the Earl of Chatham; Emerson's American Scholar; Irving's Sketch Book; Scott's Abbot; Dickens's David Copperfield.

PHILOSOPHICAL COURSE.

For admission to the Philosophical Course, German or French is substituted for Greek. The candidate must give evidence of a thorough knowledge of the accidence and more important principles of the syntax of the language presented, and be able to render simple English sentences into the same, and must have translated the equivalent of four hundred pages of German or six hundred of French, including two classic dramas. The Joynes-Meissner German Grammar, and Edgren's French Grammar represent the amount of text-book work in grammar and composition required for preparation in these languages.

ENGINEERING COURSES.

Candidates for the Engineering Courses will be examined in the following studies: —

1. Arithmetic. (See Requirement 12, page 23.)
2. Algebra. (See Requirement 13, page 23.)
3. Plane Geometry.
4. Solid Geometry.
5. German or French. (See Requirements 11a, 11b, pages 22, 23.)
6. English Grammar and Composition. (See Requirement 16, page 23.)

The regular examination for admission will begin on the day after Commencement, and continue through the following day. A second examination will also be held on the Tuesday and Wednesday preceding the beginning of the college year. The examination will begin at 9 o'clock A. M., on each of these days.

At the regular examination in June, those who will be candidates for admission to the Freshman Class one year later may present themselves for a preliminary examination, if certified by their teachers to be prepared on not less than nine of the sixteen subjects enumerated on the preceding pages, and may receive certificates if they pass on not less than seven. English may be presented at the final examination only.

For admission to an advanced class, an examination must be well sustained both in the preparatory studies and in the studies through which such class has passed. To be admitted to advanced standing, one must also pay half the tuition of the previous portion of the course, unless he comes from another college; provided, that if he be admitted at the beginning of the Senior year the tuition of the Junior year shall be the only arrears required of him.

While under certain conditions the certificates of teachers in good standing are accepted in lieu of an examination, this method of admission is regarded with disfavor. Candidates so admitted will be considered as upon a special probation, which may be terminated at any time if their preparation is found to be inadequate. To be received, the certificate (blank forms of which will be sent on application to the Secretary of the Faculty) must specify which of the subjects have been pursued and to what extent, or what are offered as equivalents in case the preparatory course has differed from that presupposed in the foregoing requisitions, and must express the opinion of the teacher that the candidate is well prepared to enter upon a college course.

Courses of Study.[1]

CLASSICAL COURSES.

Two courses of study lead to the degree of Bachelor of Arts.

Course I., for candidates who enter with Greek, corresponds to that which is usually offered by the New England colleges.

Course II., offered in 1892–93 for the first time, has been arranged especially to meet the needs of graduates from the best English high schools, and will receive those who present, instead of the preparatory Greek, an advanced and equivalent course in either French or German, in addition to the elementary knowledge of the alternate modern language. (See pages 21, 22.)

Course II. may be made, as regards language, either modern or ancient according as the student prefers to continue his maximum language, — which he may do for three years, — or to begin the study of elementary Greek with the prospect of covering by the end of the Junior year both the Greek of the preparatory school and that required in Course I. In Course II. the alternate modern language is a required study for two years, and may be elected through the entire course.

Elective privileges in both courses begin at the middle of the Sophomore year. Excepting in Greek, French, and German, the required work of the two courses is identical.

COURSE I.

FRESHMAN CLASS.

First Term.

Latin 1. — Livy; Cicero, De Senectute; Latin Composition; Roman History and Antiquities, with Illustrated Lectures. *Five hours a week.*
Professor Dearborn.

Greek 1. — Xenophon, Memorabilia or Cyropaedia; Herodotus, Book VI.; Lectures on Attic and Ionic Dialects, and on Grecian History; Greek Prose Composition, Allinson. *Four hours a week.*
Mr. Graves.

Optional Reading in the Iliad. *Two hours a week.* Mr. Graves.

[1] The following courses of study do not go into effect until 1892–93.

French 1 (if entering with French). — Edgren's Grammar; Super's French Reader. *Four hours a week.*

German 1 (if entering with German). — Joynes-Meissner Grammar; Bernhardt, Im Zwielicht, II. *Four hours a week.* Professor Fay.

Mathematics 1. — Taylor's College Algebra; Byerly's Chauvenet's Solid and Spherical Geometry. *Four hours a week.* Professor Brown.

English 1. — English Composition. *One hour a week.* Professor Shipman.

Second Term.

Latin 1. — Cicero, De Senectute, continued; Horace, Satires and Epistles; Latin Composition; Roman History and Antiquities; Lectures on the History of the Latin Language and Literature. *Five hours a week.* Professor Dearborn.

Greek 1. — Thucydides, parts of Books VI. and VII.; Homer, Odyssey (Phœacian Episode); Lectures on Old Attic and Epic Dialects; Greek Prose Composition in the style of Xenophon. *Four hours a week.* Mr. Graves.

Optional reading in the Iliad. *One hour a week.* Mr. Graves.

French 1 (if entering with French). — Mérimée, Colomba; Sandeau, Mademoiselle de la Seiglière (the play); Grammar and Composition. *Three hours a week.*

German 1 (if entering with German). — Riehl, Der Fluch der Schönheit; Freytag, Aus dem Staat Friedrichs des Grossen; Composition. *Three hours a week.* Professor Fay.

Mathematics 1. — Byerly's Chauvenet's Solid and Spherical Geometry, continued; Wentworth's Trigonometry. *Four hours a week.* Professor Brown.

English 1. — English Composition. *One hour a week.* Professor Shipman.

SOPHOMORE CLASS.

First Term.

Latin 2. — Horace, Odes and Epodes; Cicero, De Amicitia; Latin Composition. *Three hours a week.* Professor Dearborn.

Greek 2. — Ten Attic Orators, with Jebb's Attic Orators as Commentary; Goodwin's Greek Moods and Tenses; Lectures on Attic Law and Greek Life. *Three hours a week.* Mr. Graves.

Optional reading in Euripides. *One hour a week.* Mr. Graves.

German 1 (if entering with French). — Joynes-Meissner, Grammar; Bernhardt, Im Zwielicht, II. *Four hours a week.* PROFESSOR FAY.

French 1 (if entering with German). — Edgren's Grammar; Super's French Reader. *Four hours a week.*

English 2. — Rhetoric, Genung's; Themes; Extemporaneous Composition. *Three hours a week.* PROFESSOR SHIPMAN.

Mathematics 2. — Spherical Trigonometry; Applications of Trigonometry; Hardy's Analytic Geometry. *Four hours a week.* PROFESSOR BROWN.

Oratory 1. — Practice in Reading Standard Selections; Vocal Exercises. *One hour a week.* PROFESSOR MAULSBY.

Second Term.

Latin 2. — Terence, Adelphi; Tacitus, Annals. *Four hours a week.* PROFESSOR DEARBORN.

Greek 2. — The Dramatists; Study of Rhythm and Metre; Lectures on Development of the Drama, the Greek Theatre, and the Dramatists. *Three hours a week.* MR. GRAVES.

Optional reading in Plato. *Two hours a week.* MR. GRAVES.

Physics 1. — Mechanics, Daniell's Principles. *Three hours a week.* PROFESSOR HOOPER.

Oratory 1. — Practice in Reading, continued; Gestures, with Class Exercises; Individual Preparation of Special Selections. *One hour a week.* PROFESSOR MAULSBY.

ELECTIVE. — Six hours a week from the following elective studies (see page 34): — English 4, 6; French 1 (German 1) continued (see page 35); Mathematics 3, 6; Engineering 1; Natural History 1. (For regulations regarding choice of electives, see page 67.)

JUNIOR CLASS.

First Term.

Physics 2. — Properties of Matter; Heat; Light; Daniell's Principles of Physics. *Three hours a week.* PROFESSOR DOLBEAR.

Chemistry 1. — Inorganic Chemistry, with Recitations, Lectures and Laboratory Work. *Four hours a week.* PROFESSOR COMEY and MR. DURKEE

English 3. — Themes. PROFESSOR SHIPMAN.

ELECTIVE. — Nine hours a week in the following elective studies: Latin 3; Greek 3; English 7, 11; French 2; German 2; Mathematics 4; Engineering 3, 4; Physics 3; Natural History 2; Oratory 2.

Second Term.

Physics 2. — Sound; Electricity; Daniell's Principles of Physics. *Three hours a week.* PROFESSOR DOLBEAR.

Philosophy 1. — Psychology, Hill's; Sully's. *Four hours a week.* PROFESSOR SHIPMAN

English 3. — Themes. PROFESSOR SHIPMAN.

ELECTIVE. — Nine hours a week from the following elective studies: Latin 3; Greek 3; English 8; German 2; French 2; Mathematics 4; Engineering 2, 3, 4; Physics 3; Chemistry 2; Natural History 3; Oratory 2.

SENIOR CLASS.

First Term.

Philosophy 2. — Ethics; Calderwood's Moral Science, with references to Kant's Metaphysic of Ethics and Ueberweg's History of Philosophy. *Four hours a week.* PRESIDENT CAPEN.

Philosophy 3. — Logic, Jevons's; Davis's. *Three hours a week.* PROFESSOR SHIPMAN.

ELECTIVE. — Nine hours a week from the following elective studies: Latin 4; Greek 4; Hebrew; English 5, 9; German 3; French 3; Italian; Philosophy 4; Jurisprudence; Mathematics 5; Engineering 5; Physics 4, 5, 6; Astronomy; Chemistry 3, 4; Natural History 4; Oratory 2.

Second Term.

Political Economy. — Marshall's; Fawcett's; Lectures. *Four hours a week.* PRESIDENT CAPEN.

ELECTIVE. — Nine hours a week from the following elective studies: Hebrew; Latin 4; Greek 4; English 5, 10; German 3; French 3; Italian; Philosophy 5; Jurisprudence; Mathematics 5; Engineering 5; Physics 4, 5, 7; Chemistry 4, 5, 6; Natural History 5, 6, 7; Oratory 2.

COURSE II.

Two alternative courses are offered according as Advanced German (Course A), or French (Course B), has been presented for admission.

COURSE A.

FRESHMAN CLASS.

First Term.

Latin 1, **Mathematics 1**, and **English 1.** — As in Course I. (See page 26.) *Ten hours a week.*

French 1. — Edgren's Grammar; Super's French Reader. *Four hours a week.*

OPTION. — **Elementary Greek.** — Goodwin's Greek Grammar; White's First Lessons in Greek; Xenophon, Anabasis (Goodwin). *Five hours a week.* MR. GRAVES.

or,

German 3. Schiller, Maria Stuart (with Dünzer's Erläuterungen) Geschichte des Abfalls der Niederlande (selections); Göthe, Egmont. *Three hours a week.* PROFESSOR FAY.

Second Term.

Latin 1, **Mathematics 1**, and **English 1.** — As in Course I. (See page 27.) *Ten hours a week.*

French 1. — Mérimée, Colomba; Sandeau, Mademoiselle de la Seiglière (the play), Grammar and Composition. *Four hours a week.*

OPTION. — **Elementary Greek.** — Xenophon, Anabasis; Homer, Iliad (Seymour); Greek Prose Composition (Jones). *Five hours a week.* MR. GRAVES.

or,

German 3. — Müller's Geschichte §§ 374–419 (The Thirty-Years' War); Schiller, Wallenstein; Balladen und Romanzen (Buchheim's collection); two essays in German. *Three hours a week.* PROFESSOR FAY.

SOPHOMORE CLASS.

First Term.

Latin 2, Mathematics 2, English 2, and **Oratory 1.** — As in Course I. (See pages 27, 28.) *Eleven hours a week.*

French 2. — Readings from French History (Super's collection); H. Martin, Jeanne Darc; Racine, Athalie. *Three hours a week.*

Option. — **Greek 1.** — Xenophon, Memorabilia or Cyropaedia; Herodotus, Book VI.; Lectures on Attic and Ionic Dialects and on Grecian History; Greek Prose Composition, Allinson. *Four hours a week.*

Mr. Graves.

or,

German 4. — Lessing, Prosa, Nathan der Weise; Göthe, Tasso; Dünzer, Erläuterungen zu Nathan, zu Tasso; two essays in German. *Three hours a week.* Professor Fay.

Second Term.

Latin 2, Physics 1, and **Oratory 1.** — As in Course I. (See page 28.) *Eight hours a week.*

French 2. — Molière, L'Avare; Corneille, Polyeucte; George Sand, Les Maîtres Mosaïstes; two essays in French. *Three hours a week.*

Elective. — Six hours a week (seven, if Greek 1 is elected) from the following elective studies: Greek 1; English 4, 6; German 4 (continued); Mathematics 3, 6; Natural History 1.

JUNIOR CLASS.

Prescribed Studies. — As in Course I. (See page 28.)

Electives. — In addition to the Junior electives for Course I., Greek 2, French 3, and German 5 are open.

SENIOR CLASS.

Prescribed Studies. — As in Course I. (See page 29).

Electives. — In addition to the Senior electives for Course I., Greek 3, and French 4 are open.

COURSE B.

As in Course A, substituting for each course in French the course in German of the same number, and *vice versa*. (See pages 35, 36.)

PHILOSOPHICAL COURSE.

This course of study, leading to the degree of Bachelor of Philosophy, coincides with the foregoing in the Junior and Senior years, and varies from them in the first two years, according as German (Course A), or French (Course B), has been presented for admission, as follows: —

COURSE A.

FRESHMAN CLASS.

First Term.

Latin 1, **Mathematics 1**, and **English 1.** — As in the Classical Course. (See page 26.) *Ten hours a week.*

French 1. — Edgren's Grammar; Super's French Reader. *Four hours a week.*

German 2. — Lessing, Minna von Barnhelm; Schiller, Wilhelm Tell; Wieland, Oberon; Grammar and Composition. *Three hours a week.*

Second Term.

Latin 1, **Mathematics 1**, and **English 1.** — As in the Classical Course. (See page 27.) *Ten hours a week.*

French 1. — Mérimée, Colomba; Sandeau, Mademoiselle de la Seiglière (the play); Grammar and Composition. *Four hours a week.*

German 2. — Heine, Die Harzreise; Müller, Geschichte des deutschen Volkes, §§ 532 ff. (Struggle against the French Revolution); Göthe, Hermann und Dorothea; one essay in German. *Three hours a week.*

SOPHOMORE CLASS.

First Term.

Latin 2, **English 2**, **Mathematics 2**, and **Oratory 1.** — As in the Classical Course. (See pages 27, 28.) *Eleven hours a week.*

French 2. — Readings from French History (Super's collection); H. Martin, Jeanne Darc; Racine, Athalie. *Three hours a week.*

German 3. — Schiller, Maria Stuart (with Düzner's Erläuterungen); Geschichte des Abfalls der Niederlande (selections); Göthe, Egmont. *Three hours a week.* PROFESSOR FAY.

Second Term.

Latin 2, Physics 1, and **Oratory 1.** — As in the Classical Course. (See page 28.) *Eight hours a week.*

French 2. — Molière, L'Avare; Corneille, Polyeucte; George Sand, Les Maîtres Mosaistes; two essays in French. *Three hours a week.*

ELECTIVE. — Six hours a week from the following elective studies: English 4, 6; German 3, continued; Mathematics 3, 6; Natural History 1.

JUNIOR CLASS.

PRESCRIBED STUDIES. — As in the Classical Course. (See page 28).

ELECTIVES. — In addition to the regular Junior electives for the Classical Course I., Elementary Greek, counting as three hours (see pages 30, 31); French 3, and German 4 are open.

SENIOR CLASS.

PRESCRIBED STUDIES. — As in the Classical Course. (See page 29.)

ELECTIVES. — In addition to the Senior electives for the Classical Course I., Greek 1 (counting as three hours), French 4, and German 5 are open.

COURSE B.

As in Course A, substituting for each course in French the course in German of the same number, and *vice versa*. (See pages 35, 36.)

ELECTIVE STUDIES.

For regulations regarding elective studies, see page 67.

Hebrew. — Rudiments of Hebrew Grammar; Vocabulary and Word Studies; Reading of Easy Prose, with Criticism; History of Hebrew Religion. *Three hours a week for the year.* DR. CURTIS.

Latin 3. — Juvenal; Cicero, De Officiis. *Three hours a week for the year.* PROFESSOR DEARBORN.

4. — Pliny, Letters; Terence; Lucretius. *Three hours a week for the year.* PROFESSOR DEARBORN.

Greek 1. — Xenophon, Memorabilia or Cyropædia; Herodotus, Book VI.; Thucydides, parts of Books VI. and VII.; Homer, Odyssey (Phœacian Episode); Lectures on Attic, Ionic, and Epic Dialects, and on Grecian History; Greek Prose Composition. *Four hours a week for the year.* MR. GRAVES.

2. — Ten Attic Orators, Jebb's Attic Orators as Commentary; The Dramatists; Lectures on Attic Law, Greek Life, The Development of the Drama, and on the Greek Theatre and Dramatists; Goodwin's Greek Moods and Tenses; Study of Rhythm and Metre. *Three hours a week for the year.* MR. GRAVES.

3. — Plato, Symposium; Sight-Reading in the Odyssey, Tyler's Lyrics, Orations of Lysias. *Three hours a week for the year.* PROFESSOR SCHNEIDER.

4. — Aristotle, Ethics; Theocritus, Idylls. *Three hours a week for the year.* PROFESSOR SCHNEIDER.

English 4. — English Composition (advanced course). *Three hours a week for the second term.* PROFESSOR SHIPMAN.

5. — English Composition. *Three hours a week for the year.*

(Course 5 may be taken as an extra elective only.)

PROFESSOR SHIPMAN.

6. — English Literature. Chaucer, Bacon, Shakspeare. *Three hours a week for the second term.* PROFESSOR MAULSBY.

7. — English Literature. Milton to Cowper, with selected authors; as, Dryden, Pope, Addison, Gray, Goldsmith. *Three hours a week for the first term.* PROFESSOR MAULSBY.

8. — English Literature. 1800 to 1840; selected authors; as, Shelley, Keats, Wordsworth, Lamb, Irving, Poe. *Three hours a week for the second term.* PROFESSOR MAULSBY.

9. — English Literature. 1840 to the present; selected authors; as, Carlyle, Ruskin, Tennyson, Browning, Emerson, Lowell. *Three hours a week for the first term.* PROFESSOR MAULSBY.

10. — English Literature. Study of a Special Topic. (See page 51.) *Three hours a week for the second term.* PROFESSOR MAULSBY.

11. — English Philology. — History of the English Language. *Three hours a week for the first term.* PROFESSOR MAULSBY.

German 1. — Joynes-Meissner, Grammar; Bernhardt, Im Zwielicht, II. Riehl, Der Fluch der Schönheit; Freytag, Aus dem Staat Friedrichs des Grossen; Composition. *Four hours a week for the first term, three for the second term.* PROFESSOR FAY.

2. — Lessing, Minna von Barnhelm; Schiller, Wilhelm Tell; Wieland, Oberon; Heine, Die Harzreise; Müller, Geschichte des deutschen Volkes, §§ 532 ff. (Struggle against the French Revolution); Göthe, Hermann und Dorothea; Grammar and Composition; one essay in German. *Three hours a week for the year.*

3. — Schiller, Maria Stuart (with Dünzer's Erläuterungen), Geschichte des Abfalls der Niederlande (selections); Göthe, Egmont; Müller's Geschichte, §§ 374–419 (The Thirty-Years' War); Schiller, Wallenstein; Balladen und Romanzen (Buchheim's collection); two essays in German. *Three hours a week for the year.* PROFESSOR FAY.

4. — Lessing, Prosa, Nathan der Weise; Göthe, Tasso, Faust; Dünzer, Erläuterungen zu Nathan, zu Tasso, zu Faust; two essays in German. *Three hours a week for the year.* PROFESSOR FAY.

5. — Vilmar, Geschichte der deutschen Literatur, with illustrative texts for principal epochs. Course in Middle High German: Das Nibelungenlied; Walther von der Vogelweide. Thesis for honor men. *Three hours a week for the year.* PROFESSOR FAY.

(Course 5 will not be given in 1892–93.)

French 1. — Edgren's Grammar; Super's French Reader. Mérimée, Colomba; Sandeau, Mademoiselle de la Seiglière (the play); Grammar and Composition. *Four hours a week for the first term, three hours a week for the second term.*

2. — Readings from French History (Super's collection); H. Martin, Jeanne Darc; Racine, Athalie. Molière, L'Avare; Corneille, Poly-

euete; George Sand, Les Maîtres Mosaïstes; two essays in French. *Three hours a week for the year.* —— ——

3. — Literature of the 17th century: Racine, Andromaque, Mithridate, Phèdre; Molière, Le Bourgeois Gentilhomme, Le Misanthrope, Le Tartuffe. La Société Française au XVII^e^ Siècle (Crane); Molière, Les Précieuses Ridicules, Les Femmes Savantes; Madame de Sévigné, Lettres Choisies; one essay in French. (Ploetz's Nouvelle Grammaire Française will be used for reference in Course 3, and the German exercises of his Cours Gradué de Thèmes will be translated into French.) *Three hours a week for the year.* PROFESSOR FAY.

4. — Literature of the 19th century: Le Romantisme Français (Crane); Hugo, Hernani, Ruy Blas, L'Année Terrible; Lamartine, Jocelyn; George Sand, Indiana; De Musset, Confessions d'un Enfant du Siècle; De Vigny, Cinq-Mars; Taine, La Fontaine et ses Fables; Cherbuliez, Méta Holdenis; two essays in French. *Three hours a week for the year.* —— ——

5. — Demogeot, Littérature de la Langue Française, with illustrative texts for 16th and 18th centuries; two essays in French. Course in Old French: La Chanson de Roland; Joinville, Histoire de Saint Louis. Thesis for honor men. *Three hours a week for the year.* PROFESSOR FAY.

(Course 5 will not be given in 1892–93.)

Italian. — Grandgent's Grammar and Composition; De Amicis, Spagna. Dante, Divina Commedia (Scartazzini's edition.) *Three times a week for the year.* PROFESSOR FAY.

(Open to students who have had two years of French.)

Philosophy 4. — History of Philosophy. *Three hours a week for the first term.* PROFESSOR SHIPMAN.

5. — Logic (advanced course). *Three hours a week for the second term.* PROFESSOR SHIPMAN.

Jurisprudence. — Ancient Law; Roman Law; International Law; Lectures. *Three hours a week for the year.* PRESIDENT CAPEN.

Mathematics 3. — Taylor's Differential and Integral Calculus. *Three hours a week for the second term.* PROFESSOR BROWN.

4. — Differential and Integral Calculus (advanced course). *Three hours a week for the year.* PROFESSOR BROWN.

5. — Geometry of Three Dimensions; Advanced Analytic Geometry. *Three hours a week for the year.* PROFESSOR BROWN.

6. — Advanced Algebra. Elements of Determinants and Theory of Equations. *Two hours a week for the second term.* PROFESSOR BROWN.

Engineering 1. — Descriptive Geometry: Shades and Shadows; Perspective. *Four hours a week for the second term.*
PROFESSOR BRAY.

2. — Steam Engine, Theory and Construction. *Three hours a week for the second term.* PROFESSOR BRAY.

3. — Applied Mechanics. *Four hours a week for the year.*
PROFESSOR BRAY.

4. — Mechanical Drawing. (See Engineering Courses.) *Three hours a week.* MR. SANBORN.

5. — Mechanical Drawing (advanced course). (See Engineering Courses.) *Three hours a week.* MR. SANBORN.

Physics 3. — Physical Laboratory: Mechanics and Electricity, Stewart and Gee; Sound, Heat, and Light, Glazebrook and Shaw. *Three hours a week for the year.* PROFESSOR HOOPER.

4. — Physical Laboratory (advanced course): Mechanics and Electricity, Stewart and Gee; Electrical Testing, Kempe; Absolute Measurement, Gray. *Three hours a week for the year.*
PROFESSOR HOOPER.

5. — Electricity: Thompson's Dynamos; Kapp's Electrical Transmission of Energy. Recitations and Lectures. *Three hours a week for the year.* PROFESSOR HOOPER.

6. — Philosophy of Physics: Lectures. *Two hours a week for the first term.* PROFESSOR DOLBEAR.

(Course 6 may be taken as an extra elective only.)

7. — Spencer's First Principles. *Two hours a week for the second term.*
PROFESSOR DOLBEAR.

Astronomy. — Young's Astronomy. *Two hours a week for the first term.*
PROFESSOR DOLBEAR.

Chemistry 2. — Qualitative Analysis: Basic Analysis; Lectures and Laboratory Work. *Three hours a week for the second term.*
PROFESSOR COMEY and MR. DURKEE.

3. — Qualitative Analysis, continued: Acid Analysis; Analysis of Salts and Natural Products. *Three hours a week for the first term.*
PROFESSOR COMEY.

4. — Quantitative Analysis: Gravimetric and Volumetric Analysis; Analysis of Ores. *Three hours a week for the year.*
PROFESSOR COMEY.

(Course 4 is open to students who have taken Course 2.)

5. — Quantitative Analysis (advanced course) : Analysis of Water, Food Products, etc. *Three hours a week for the second term.*
PROFESSOR COMEY.

6. — Organic Chemistry. Lectures, Recitations, and Laboratory Work. *Three hours a week for the second term.*
PROFESSOR COMEY.

(Course 5 is open to students who have taken Course 4.)

Natural History 1. — Botany: Structural and Morphological Botany; Vegetable Histology. *Three hours a week for the second term.*
PROFESSOR MARSHALL.

2. — Human Physiology and Anatomy: Martin, The Human Body. *Three hours a week for the first term.* PROFESSOR MARSHALL.

3. — Zoölogy, Packard's. *Three hours a week for the second term.*
PROFESSOR MARSHALL.

4. — Geology, Le Conte's, with Lectures. *Three hours a week for the first term.* PROFESSOR MARSHALL.

5. — Mineralogy: Qualitative and Quantitative Blow-Pipe Analysis. *Three hours a week for the second term.*
PROFESSOR MARSHALL and MR. DURKEE.

6. — Biology, Huxley and Martin's. *Three hours a week for the second term.* PROFESSOR MARSHALL.

7. — Geology and Palæontology (advanced course) : Winchell's Geological Studies. *Three hours a week for the second term.*
PROFESSOR MARSHALL.

Oratory 2. — Individual Recitations, with Private Drill; Original Declamations; Practice in Debate. *One hour a week for two years.*
PROFESSOR MAULSBY.

ENGINEERING COURSES.

The degree of Bachelor of Mechanic Arts is conferred on those students who complete the prescribed studies in the department of Engineering. The studies are arranged in two courses, for civil and electrical engineers, and the course for which the degree is conferred is stated in the diploma.

Beginning with the year 1892–93, the regular course for students in this department will extend over four years. Until further announcement is made, there is offered to those who at the end of the first year shall have obtained an average of seventy-five per cent the option of completing their course and receiving the degree in two additional years (see page 45); but, in order to continue upon this course, the student must maintain his previous standing.

Students of the Classical and Philosophical Courses may so arrange their elective work as to make it possible to obtain the degree of Bachelor of Mechanic Arts after a post-graduate course of one year in this department.

ELECTRICAL ENGINEERING.

The aim of the course in Electrical Engineering is to impart such information, and afford such mental discipline and manual training, as will enable a young man of ability to occupy a responsible position in any branch of electrical engineering. With this end in view, Mathematics and Drawing are pursued through nearly the entire course. Physics and Mechanics, both pure and applied, receive much attention, while more than half of the fourth year is devoted to the study of Electricity, by means of practical work in the electrical laboratory, together with recitations and lectures on the principles involved. The plan of the course is as follows: —

FIRST YEAR.

First Term.

Mathematics. — Advanced Algebra; Spherical Geometry; Plane Trigonometry. *Six hours a week.* Mr. Sanborn.

Mechanical Drawing. — Geometric and Orthographic Drawing. *Three hours a week.* Mr. Sanborn and Mr. Daniels.

Freehand Drawing. — Sketching of Working Drawings; Lettering. *One hour a week.* Mr. Sanborn.

Practical Work. — Woodwork; Carpentry; Pattern-Making; Turning. *Two hours a week.* Mr. Kirk.

Rhetoric. — Extemporaneous Composition. *Two hours a week.*
Professor Shipman.

French. — Edgren's Grammar; Super's French Reader. *Four hours a week.*

or,

German. — Joynes-Meissner, Grammar; Bernhardt, Im Zwielicht, II. *Four hours a week.* Professor Fay.

Second Term.

Mathematics. — Spherical Trigonometry; Physical Arithmetic. *Four hours a week.* Mr. Sanborn.

Descriptive Geometry. — Shades and Shadows; Perspective. *Four hours a week.* Professor Bray.

Drawing. — Orthographic and Mechanical Drawing. *Three hours a week.* Mr. Sanborn.

Physics. — Mechanics, Daniell's Principles of Physics. *Three hours a week.* Professor Hooper.

Rhetoric. — Extemporaneous Composition. *One hour a week.*
Professor Shipman.

French. — Mérimée, Colomba; Sandeau, Mademoiselle de la Seiglière (the play); Grammar and Composition. *Three hours a week.*

or,

German. — Riehl, Der Fluch der Schönheit; Freytag, Aus dem Staat Friedrichs des Grossen; Composition. *Three hours a week.*
Professor Fay.

SECOND YEAR.

First Term.

Mathematics. — Analytic Geometry. *Four hours a week.* Mr. Sanborn.

Physics. — Properties of Matter; Heat; Light; Daniell's Principles of Physics. *Three hours a week.* Professor Dolbear.

Elements of Mechanism. — Construction of Cams; Linkwork; Gears, etc. *One hour a week.* Mr. Sanborn.

Drawing. — Detail and Assembly Drawings. *Two hours a week.*
Mr. Sanborn.

French. — Readings from French History (Super's collection); H. Martin, Jeanne Darc; Racine, Athalie. *Three hours a week.*

or,

German. — Lessing, Minna von Barnhelm; Schiller, Wilhelm Tell; Wieland, Oberon; Grammar and Composition. *Three hours a week.*
Professor Fay.

ELECTIVE. — In addition to the above, one of the following elective studies : —

English Philology. — History of the English Language. *Three hours a week.* PROFESSOR MAULSBY.

English Literature. — 1840 to the present time. *Three hours a week.* PROFESSOR MAULSBY.

Rhetoric. — Carpenter's ; Themes ; Extemporaneous Composition. *Three hours a week.* PROFESSOR SHIPMAN.

Second Term.

Mathematics. — Differential and Integral Calculus. *Three hours a week.* PROFESSOR BROWN.

Physics. — Sound ; Electricity ; Daniell's Principles of Physics. *Three hours a week.* PROFESSOR DOLBEAR.

Physical Laboratory. — Mechanics ; Sound, Heat, and Light. *Three hours a week.* PROFESSOR HOOPER.

Practical Work. — Filing ; Turning ; Screw-cutting. *Two hours a week.* PROFESSOR BRAY.

Drawing. — Detail and Assembly Drawings. *Two hours a week.* MR. SANBORN.

French. — Molière, L'Avare ; Corneille, Polyeucte ; George Sand, Les Maîtres Mosaïstes ; two essays in French. *Three hours a week.*

or,

German. — Heine, Die Harzreise ; Müller, Geschichte des deutschen Volkes, §§ 532 ff. (Struggle against the French Revolution) ; Göthe, Hermann and Dorothea ; one essay in German. *Three hours a week.*

THIRD YEAR.

First Term.

Mathematics. — Differential and Integral Calculus (advanced course). *Three hours a week.* PROFESSOR BROWN.

Mechanics. — Applied Mechanics. *Four hours a week.* PROFESSOR BRAY.

Chemistry. — Inorganic Chemistry, with Recitations, Lectures, and Laboratory Work. *Four hours a week.* PROFESSOR COMEY and MR. DURKEE.

Electricity. — Units ; Theory of Measurements ; Electrical Calculations ; Recitations and Lectures. *Two hours a week.* PROFESSOR HOOPER.

Physical Laboratory. — Magnetic and Electrical Measurements ; Construction of Apparatus ; Recitations and Lectures. *Two hours a week.* PROFESSOR HOOPER.

Drawing. — Machine Drawing. *One and a half hours a week.* MR. SANBORN.

Second Term.

Mathematics. — Differential and Integral Calculus (advanced course). *Three hours a week.* PROFESSOR BROWN.

Mechanics. — Applied Mechanics. *Four hours a week.* PROFESSOR BRAY.

Steam-Engine, — Theory and Construction. *Four hours a week.* PROFESSOR BRAY.

Electricity. — Theory of Measurements; Electrical Calculations; Wiring; Recitations and Lectures. *Two hours a week.* PROFESSOR HOOPER.

Physical Laboratory. — Magnetic and Electrical Measurements; Construction of Apparatus. *Two hours a week.* PROFESSOR HOOPER.

Drawing. — Boiler and Steam Engine Drawing. *One and a half hours a week.* MR. SANBORN.

FOURTH YEAR.

First Term.

Mathematics. — Theory of Least Squares. *Two hours a week.* PROFESSOR BROWN.

Dynamics of Machines. — General Theory of Machines; Theory of Prime Movers; Construction and Location of Machines; Designs and Reviews of Special Machines. *Two hours a week.* PROFESSOR BRAY.

Electricity. — Thompson's Dynamo-Electric Machinery; Kapp's Electrical Transmission of Energy; Systems of Lighting; Lectures and Recitations. *Four hours a week.* PROFESSOR HOOPER.

Electrical Laboratory. — Management of Electrical Machinery; Dynamo Testing; Accumulators; Photometry of Arc and Incandescent Lamps; Testing of Lines and Conductors. *Five hours a week.* PROFESSOR HOOPER.

Drawing. — Machine Designing. *Three hours a week.* MR. SANBORN.

English Composition. — *One hour a week.* PROFESSOR SHIPMAN.

Second Term.

Electricity. — Fleming's Induction of Currents; Design of Dynamos; Electrical Railways; Recitations and Lectures. *Four hours a week.* PROFESSOR HOOPER.

Electrical Laboratory. — Construction of Electrical Machinery; Special Investigations. *Five hours a week.* PROFESSOR HOOPER.

Technical Applications of Electricity. — Lectures on Telegraph, Telephone, Electro-metallurgy, etc. *Two hours a week.* PROFESSOR DOLBEAR.

Political Economy. — Marshall's; Fawcett's; Lectures. *Four hours a week.* PRESIDENT CAPEN.

English Composition. *One hour a week.* PROFESSOR SHIPMAN.

Preparation of Thesis.

CIVIL ENGINEERING.

The course of study in the department of Civil Engineering has been arranged with reference to its disciplinary and educational value, as well as to the general and technical knowledge which it imparts, and has constantly in view the training of competent designers and constructors. It differs from the preceding in offering branches of special technical value to civil engineers in the place of electricity and its applications. The plan of the course is as follows: —

The course for the first year is identical with that in the Electrical Engineering Course. (See pages 39, 40.)

SECOND YEAR.

First Term.

Mathematics, French or German, Physics, and Elective. — As in the Electrical Engineering Course. (See pages 40, 41.) *Thirteen hours a week.*

Surveying. — Principles of Surveying; Lectures and Recitations. *Two hours a week.* MR. SANBORN and MR. DANIELS.

Drawing. — Plotting; Field Work with Chain, Compass, and Transit. *Three hours a week.* MR. DANIELS.

Second Term.

Mathematics, French or German, and Physics. — As in the Electrical Engineering Course. (See page 41.) *Nine hours a week.*

Mathematical Astronomy. — *Two hours a week.* PROFESSOR BROWN.

Surveying. — Lectures and Recitations. *Two hours a week.* MR. SANBORN and MR. DANIELS.

Drawing. — Plotting and Topographical Drawing; Field Work with Transit and Level. *Three hours a week.* MR. DANIELS.

THIRD YEAR.

First Term.

Mathematics, Mechanics, and Chemistry. — As in the Electrical Engineering Course. (See page 41.) *Eleven hours a week.*

Drawing. — Topographical Drawing; Field Work with Plane Table and Stadia. *Three hours a week.* MR. DANIELS.

Option. — **Electricity**. — Units; Theory of Measurements; Electrical Calculations. *Two hours a week.* Professor Hooper.

or,

Geology. — Descriptive and Practical Geology. *Two hours a week.* Professor Marshall.

Second Term.

Mathematics, Mechanics, and Steam Engine. — As in the Electrical Engineering Course. (See page 42.) *Eleven hours a week.*

Drawing. — Machine Drawing; Boiler and Steam Engine Drawing; Structure Drawing. *Three hours a week.* Mr. Sanborn.

Option.[1] — **Electricity**. — Theory of Measurements; Electrical Calculations; Wiring. *Two hours a week.* Professor Hooper.

or,

Chemistry. Basic Qualitative Analysis; Lectures and Laboratory Work. *Three hours a week.* Professor Comey and Mr. Durkee.

FOURTH YEAR.

First Term.

Mathematics, Dynamics of Machines, and English. — As in the Electrical Engineering Course. (See page 42.) *Five hours a week.*

Civil Engineering. — Strength of Materials; Laboratory Work with Testing Machine; Stability of Structures of stone, wood, and iron. *Four hours a week.* Professor Bray.

Road Engineering. — Railways and Highways; Lectures and Recitations. *Three hours a week.* Professor Bray.

Drawing. — Drawing and Field Work connected with Road Engineering. *Two hours a week.* Mr. Daniels.

Option. — **Electricity**. — Thompson's Dynamo-Electric Machinery; Kapp's Transmission of Energy; Systems of Lighting; Recitations and Lectures. *Four hours a week.* Professor Hooper.

or,

Chemistry. — Qualitative Analysis, continued. Acid Analysis; Analysis of Salts and Natural Products. *Three hours a week.* Professor Comey.

[1] Students electing Electricity in the third year will continue that subject in the fourth year; and those electing Geology and Chemistry in the third year will continue Chemistry.

Second Term.

English and Political Economy. — As in the Electrical Engineering Course. (See page 42.) *Five hours a week.*

Civil Engineering. — Bridge and Roof Building, Drainage and Sewerage; Hydraulics; Masonry Construction. *Four hours a week.* PROFESSOR BRAY.

Road Engineering. — Economic Considerations, with Designing of Mechanical Structures. *Two hours a week.* PROFESSOR BRAY.

OPTION. — **Electricity.** — Fleming's Induction of Currents; Design of Dynamos; Electrical Railways; Recitations and Lectures. *Four hours a week.* PROFESSOR HOOPER.

or,

Chemistry. — Quantitative Analysis, Gravimetric and Volumetric. *Four hours a week.* PROFESSOR COMEY.

Preparation of Thesis.

THREE YEARS' COURSE IN ELECTRICAL ENGINEERING.

(See page 39.)

The course for the first year is identical with that of the four years' course. (See pages 39, 40.)

SECOND YEAR.

First Term.

Mathematics. — Analytic Geometry. *Four hours a week.* MR. SANBORN.

Physics. — Properties of Matter; Heat; Light; Daniell's Principles of Physics. *Three hours a week.* PROFESSOR DOLBEAR.

Electricity. — Units; Theory of Measurements; Electrical Calculations, Recitations and Lectures. *Two hours a week.* PROFESSOR HOOPER.

Physical Laboratory. — Mechanics; Electricity; Sound, Heat and Light. *Three hours a week.* PROFESSOR HOOPER.

Chemistry. — Inorganic Chemistry, with Recitations, Lectures, and Laboratory Work. *Four hours a week.* PROFESSOR COMEY and MR. DURKEE.

Drawing. — Detail and Assembly Drawing. *Two hours a week.* MR. SANBORN.

Second Term.

Mathematics. — Differential and Integral Calculus. *Three hours a week.* PROFESSOR BROWN.

Physics. — Sound; Electricity; Daniell's Principles of Physics. *Three hours a week.* PROFESSOR DOLBEAR.

Steam Engine, — Theory and Construction. *Four hours a week.* PROFESSOR BRAY.

Electricity. — Theory of Measurements; Electrical Calculations; Wiring; Recitations and Lectures. *Two hours a week.* PROFESSOR HOOPER.

Physical Laboratory. — Mechanics; Electricity; Sound, Heat and Light. *Three hours a week.* PROFESSOR HOOPER.

Drawing. — Boiler and Steam Engine Drawing. *Two hours a week.* MR. SANBORN.

Practical Work. — Filing; Turning; Screw-cutting. *Two hours a week.* PROFESSOR BRAY.

THIRD YEAR.

First Term.

Mathematics. — Differential and Integral Calculus (advanced course). *Three hours a week.* PROFESSOR BROWN.

Mechanics. — Applied Mechanics. *Four hours a week.* PROFESSOR BRAY.

Electricity. — Thompson's Dynamo-Electric Machinery; Kapp's Electrical Transmission of Energy; Systems of Lighting; Lectures and Recitations. *Four hours a week.* PROFESSOR HOOPER.

Electrical Laboratory. — Management of Electrical Machinery; Dynamo Testing; Accumulators; Photometry of Arc and Incandescent Lamps; Testing of Lines and Conductors. *Five hours a week.* PROFESSOR HOOPER.

Drawing. — Machine Drawing. *Two hours a week.* MR. SANBORN.

English Composition. — *One hour a week.* PROFESSOR SHIPMAN.

Second Term.

Mathematics. — Differential and Integral Calculus (advanced course). *Three hours a week.* PROFESSOR BROWN.

Mechanics. — Applied Mechanics. *Four hours a week.* PROFESSOR BRAY.

Electricity. — Fleming's Induction of Electrical Currents; Design of Dynamos; Electrical Railways; Recitations and Lectures. *Four hours a week.* PROFESSOR HOOPER.

Electrical Laboratory. — Construction of Electrical Machinery; Special Investigations. *Five hours a week.* PROFESSOR HOOPER.
Drawing. — Machine Designing. *Two hours a week.* MR. SANBORN.
English Composition. — *One hour a week.* PROFESSOR SHIPMAN.
Preparation of Thesis.

THREE YEARS' COURSE IN CIVIL ENGINEERING.

The course for the first year is identical with that of the four years' course. (See pages 39, 40.)

SECOND YEAR.

First Term.

Mathematics, Physics, and Chemistry. — As in the three years' course in Electrical Engineering. (See page 45.) *Eleven hours a week.*
Drawing. — Plotting and Topographical Drawing; Field Work. *Three hours a week.* MR. DANIELS.
Surveying. — Principles of Surveying; Lectures and Recitations. *Two hours a week.* MR. SANBORN and MR. DANIELS.
Rhetoric. — Carpenter's; Themes; Extemporaneous Composition. *Three hours a week.* PROFESSOR SHIPMAN.

Second Term.

Mathematics, Physics, and Steam Engine. — As in the three years' course in Electrical Engineering. (See page 46). *Ten hours a week.*
Drawing. — Boiler and Steam Engine Drawing; Field Work and Topography. *Three hours a week.* MR. SANBORN and MR. DANIELS.
OPTION. — **Physical Laboratory**. — Mechanics; Electricity; Sound, Heat, and Light. *Three hours a week.* PROFESSOR HOOPER.

or,

Chemistry. — Basic Qualitative Analysis; Lectures and Laboratory Work. *Three hours a week.* PROFESSOR COMEY and MR. DURKEE.

THIRD YEAR.

First Term.

Mathematics, Applied Mechanics, and English. — As in the three years' course in Electrical Engineering. (See page 46.) *Eight hours a week.*

Civil Engineering. — Strength of Materials; Laboratory Work with Testing Machine; Stability of Structures of stone, wood, and iron. *Four hours a week.* PROFESSOR BRAY.

Road Engineering. — Railways and Highways; Lectures and Recitations. *Three hours a week.* PROFESSOR BRAY.

Drawing. — Drawing and Field Work connected with Road Engineering. *Three hours a week.* MR. DANIELS.

Second Term.

Mathematics, Applied Mechanics, and English. — As in the three years' course in Electrical Engineering. (See pages 46, 47.) *Eight hours a week.*

Civil Engineering. — Bridge Building; Drainage and Sewerage; Hydraulics. *Four hours a week.* PROFESSOR BRAY.

Road Engineering. — Economic Considerations, etc. *Two hours a week.* PROFESSOR BRAY.

Drawing. — Sewers; Bridge Designing. *Three hours a week.* MR. DANIELS.

Preparation of Thesis.

Departments of Instruction.

Latin. — The required course of study in this department extends through two years. It is arranged and conducted to secure a good practical knowledge of the Latin Language, and to make students acquainted with ancient Roman literature. The leading purpose is the development of acuteness and discrimination. Habits of critical study and accurate thinking are fostered, with a view to the acquisition of those qualities of mind essential to success in any intellectual pursuit. In the early part of the course the forms and construction of the language are carefully studied; and, as a means of acquiring a knowledge of the structure of the language, careful attention is given to translation from English into Latin. In translation from the Latin, both oral and written, the appropriate English rendering of the original holds an important place throughout the entire course. Reading without translation, useful for those who may hereafter read Latin by themselves, is practised also. The comparative etymology of Latin, Greek, and English likewise receives attention. Lectures on the history of the Latin language and literature are given to the Freshman class. The elective courses are especially adapted to the wants and attainments of those who elect the study; but in all cases more attention than before is given to the subject-matter, and to the style and spirit of the authors read.

The work in Roman history and archæology is carried on by means of recitations, illustrated lectures, and investigations by the students themselves; and essays embodying the results of their work are read and discussed before the class.

The aim of the department is to stimulate and foster independent and scholarly effort. Accordingly, men of marked linguistic talent who can afford the necessary time are encouraged to do extra work.

Greek. — During the Freshman year the student is trained in the reading and writing of Attic Greek. Particular attention is given to the syntax of the language and to the development of the dialects. Incidentally, studies are made of the customs and daily life of the people. The relations of the language to the English tongue are discussed, and the course is shaped throughout with a view to develop, discipline, and enrich the linguistic resources of the student. A critical study of the orators and of the dramatists is undertaken in the Sophomore year. At suitable points, discussion relative to the laws, philosophy, and religion of the Greeks is introduced, and some attempt is made to exhibit the indebtedness of modern civilization to Hellenism.

Throughout the course the practice of reading at sight is encouraged, special effort being made to develop such facility that the student may resort with pleasure to the masterpieces of the Greek language, and find in them the delights and inspirations of a noble literature.

Students who have entered without Greek on the new A. B. course, may elect elementary Greek. They will be given instruction for five hours a week. It is expected that their previous training in language will enable them to accomplish in their first year the work usually done in preparation for college, and thus fit them to join, at the beginning of their Sophomore year, the Freshmen entering on the classical course.

Opportunity to elect Greek is offered throughout the Junior and the Senior year. With the Juniors the Symposium of Plato and the Clouds of Aristophanes are used, supplemented with sight-reading in the Odyssey, Herodo-

tus, the orations of Lysias, and Greek lyrics. An extended course in Greek prose composition may be taken. Members of the Senior class electing Greek may be sufficiently advanced to read Aristotle's Ethics and the Idylls of Theocritus.

English Literature. — The study of English Literature is open, as an elective, from the middle of Sophomore to the close of Senior year. The two years assigned to the study of representative authors from Chaucer to Browning, are intended primarily to give an appreciative knowledge of our literature. While acquaintance with the views of eminent critics is encouraged, the student is urged to form carefully his own opinions, based upon what literature he has actually read. Some attention is paid to biographical details and to striking events in the history of the period, but to read intelligently the literature itself is esteemed of first importance. The general method pursued is to examine a few masterpieces in the class-room with some minuteness, and to supplement this study with the private reading of other works of the author considered. Students are frequently asked to investigate special topics, and to report to the class the results of their labor. Multiple copies of many of the works studied in the class-room are to be found in the library. The latter half of the Senior year is devoted to the treatment of a special subject: as, the history of the drama, the development of the novel, the principles of literary criticism. In studying the history of English the aim of the course is to follow in outline the stages of the development of the language, with some reference to kindred forms in French and German, and special attention to the ancestry of modern English words.

Modern Languages. — Five consecutive courses are offered in French, five in German, and one in Italian. All can-

didates for admission are required to pass examination upon the elements of either German or French; those admitted without Greek must also be prepared for advanced standing in the alternate modern language. In all courses the minimum language (that in which merely the elementary examination has been passed) becomes a required study for Freshman year, and for an additional year in the two literary courses in which Greek is not required for admission. Elective privileges in the minimum language are offered for the remainder of the course. Candidates for the degree of Ph. B. pursue their advanced language also as a required study for a year and a half from entrance, with elective privileges for the remainder of their course. Candidates for the degree of A. B. without Greek may either drop their maximum language to take up Elementary Greek, or pursue it as an optional and elective study until the end of Junior year. Italian is an elective only to those who have pursued French for at least two years.

The aim of the department is twofold, according as the student has entered with the elementary or advanced requisition. In the former case it is to lead him in the briefest possible time to such a mastery of the language as will enable him to use it as a source of information and medium of literary culture; where this preliminary work has already been done, to afford this literary culture itself, together with such historical and linguistic knowledge as may properly accompany advanced work in a literary department.

Hence, in the elementary courses facility and accuracy of translation are sought by means of copious reading and careful grammatical drill; in the intermediate year the classic masterpieces are read for their own sake, together with such historical material as will throw light upon the epoch in which they were written or with which they deal; in the advanced courses, the systematic study

of the history of the literature is undertaken, and opportunity is afforded for acquiring a knowledge of the earlier literary forms. In all courses composition forms an important element in instruction and in the practice of the language. Though no attempt is made to teach to speak the languages, the ear of the student is trained from the outset to hear and to understand them when spoken, chiefly for the sake of the reflex influence of such practice upon pronunciation.

Oratory. — Oratory is taught with the purpose of making prominent its practical side. Exercises in breathing, vocalization, and gesture are introduced; specimens of good literature are read and recited; leading principles are discovered and illustrated, — all with reference to the ultimate practical value to the student. In the first term of Sophomore year attention is given to acquiring the power to read aloud with intelligence, naturalness, and force. Gesture is introduced in the second term. In the advanced course, which may be elected through the Junior and Senior years, the work consists of individual study and delivery of selections, also the preparation of original declamations and debates, with rehearsal and criticism. Occasional public recitals give the student opportunity for gaining ease before a general audience. It is remembered that good public speaking is an art rather than a science, and is therefore to be learned less through knowledge of theories than by well-directed and repeated practice.

Rhetoric. — The course of instruction in Rhetoric aims at both theoretical knowledge and practical results. It begins with extemporaneous composition in the Freshman year. In this exercise, which is weekly, formal theme-writing is avoided. Topics are assigned, with some variety of method, at the time of writing, — usually not the same topic for all, but a list is furnished from which each writer may

select, giving preference to what is nearest at hand and best understood. The brief essays are subject to criticism both in class and with the individual writers. With suitable modification this extemporaneous writing is continued at intervals to the end of the course. The formal study of Rhetoric begins with the second year. Text-books are used as the basis of instruction, and made, as far as possible, helps to the intelligent discussion of principles rather than burdens to be carried. The close relation of Rhetoric to both Psychology and Logic is kept in sight. Rhetorical precepts are applied in the criticism of this course, and especially in composition, which is required to the end of the fourth year. The student's work in Literature and other departments of college study is made to furnish real occasion, as well as material, for the preparation of essays.

The required Rhetoric may be followed by an elective course in some of the applications of the subject, or exclusively in composition.

Logic. — In the required study of Logic during the first term of Senior year, prominence is given to its consideration as a science. Deduction, accordingly, is chiefly studied, but not to the exclusion of Induction. Much attention is also given to such practical exercises as may cultivate accuracy and celerity of thinking. Pursuing applied logic still farther, the discussions include a full treatment of fallacies. Various recent modifications of logical doctrine and the full consideration of Induction are reserved for an elective course in the second term.

Psychology. — Psychology is assigned to the second term of Junior year. Without overlooking the results of psycho-physical investigation, the subject is chiefly studied in those manifestations of mind through consciousness which are within the observation of all. To observe these facts with care, to analyze, compare, and classify with a view to

a rational explanation, is in part the method pursued. The study is regarded as the proper preparation for Philosophy, in which subsequent elective courses are offered.

Ethics. — Ethics is a required subject four hours a week during the first term of Senior year. The course embraces the study of leading ethical theories, ancient and modern. In addition to recitations from the text-book, students conduct their own investigations, under the direction of the teacher, and embody the results of the same in theses. Considerable time is spent in the discussion of ethical principles, and in the comparison and criticism of modern ethical doctrines. The practical side of the subject is not neglected.

Political Economy. — Political Economy is required of the Seniors, including those in the engineering courses, four hours a week during the last term. The course begins with an historical survey, the object being to trace the growth of economic ideas from the beginning, and to note the phases they have assumed among different peoples in the modern world. Then follows the consideration of the fundamental principles of economics. Students are assigned the task of making practical application of principles to the solution of present economic problems. Time is given to subjects of immediate and living interest, such as the labor question, socialism, the tenure of land, taxation, and finance.

Law. — Law is offered as an elective to Seniors, three hours a week for a year. In the first term Ancient Law is the subject of study. The object is, first, to determine the nature of primitive jural conceptions, and, as far as possible, to ascertain how they have arisen and on what they are founded ; then, to trace the transformations which these conceptions have undergone, particularly in the Roman jurisprudence and the legal systems that have a

Roman root. The effect which legal speculations and doctrines have had, not only upon modes of procedure, but upon civil institutions, political principles, social and domestic life, is carefully studied. International Law follows in the second term. So far as the time allows, a treatment of the subject that is at once broad and practical is sought.

Mathematics. — The study of Mathematics is required through the Freshman year and the first term of the Sophomore year. The branches taught are algebra, through the subjects included in most college algebras previous to the theory of equations; solid and spherical geometry; plane and spherical trigonometry; and plane analytic geometry. Throughout the course, two objects are kept constantly in view: first, to acquire and hold certain mathematical facts for future use; secondly, and mainly, to train the mathematical faculties, so that the student may acquire the ability to deduce mathematical truths from those previously established. The class-room work of the instructor is a combination of lectures with questioning of the students to ascertain that the points presented are duly comprehended.

The students of all courses have an opportunity to continue algebra during the second term by the study of determinants and the theory of equations.

Analytic geometry may be carried beyond the prescribed course by the study of higher plane curves and geometry of three dimensions.

Differential and integral calculus is required for three terms in the engineering courses. This study is open as an elective to any student of the Sophomore, Junior, and Senior classes.

Physics. — The study of Physics is begun with the consideration of mechanics in the middle of the Sophomore

year, by those in the literary courses, and in the middle of the first year by those in the technical courses, and is continued for a year and a half in both cases. The course consists of study and recitations. Daniell's Principles of Physics is used as a text-book; critical comments and much additional matter are added; also frequent lectures are given, with experiments. As the principles of mechanics underlie every department of physics, more time is devoted to that subject than to any other, a term being given to it alone. In connection with the text, the student is given for solution a large number of problems relating to velocity, acceleration, force, energy, simple harmonic motion, impact, friction, and gravitation.

Next to mechanics, the subjects of heat and electricity receive most attention. The aim is to present the science of Physics, not as a series of detached subjects, but rather as a consistent body of doctrine in which mechanical principles hold throughout, and from which all the various phenomena are deducible. Hence in each branch of the subject there are frequent returns to those first principles. The recent rapid development of electrical science having quite outstripped text-books, this subject is treated wholly by lectures.

During the Senior year there is offered an elective course of about twenty-five lectures upon the relations of Physics to other branches of natural science, introducing the doctrine of the conservation of energy as applicable to all. After this follows a more extended consideration of the fundamental questions in physics. Spencer's First Principles is read, and its subject-matter thoroughly discussed.

In the physical laboratory beginners are given Stewart and Gee's Practical Physics, first volume, for a guide. They work for the most part independently, and each pursues a given subject till satisfactory results are obtained. Glazebrook and Shaw's Practical Physics is followed on the

subjects of sound, heat, and light; Pickering's Manipulation and Kohlrausch's Measurements being also used to a limited extent. In electricity and magnetism Stewart and Gee's second volume is mainly followed, supplemented, in the case of engineering students, by parts of Gray's Absolute Measurements and Kempe's Testing. In all laboratory work each student records methods and results in a suitable note-book, and is encouraged to do a few things well rather than to go carelessly over a larger ground. Students who are preparing themselves to become teachers of physics have an opportunity to perform most of the experiments needed for illustrating elementary work.

Chemistry. — The instruction in Chemistry begins with a course in general chemistry, assigned to the Junior year in the classical and philosophical courses, and to the third year in the engineering courses. The instruction is given by means of lectures, laboratory work, and recitations. Lectures illustrated with experiments are given twice a week, covering the field of theoretical and descriptive inorganic chemistry. The aim of these lectures is to give the student a thorough understanding of the theories of chemistry, with a knowledge of the more important elements and their compounds. A few subjects are taken up in full, while the great mass of uncommon compounds are treated briefly. Commercial methods of manufacturing the more common substances are considered. The aim of the course is to make it practical, as a part of a liberal education. Laboratory work, four hours a week, is required of all students in general chemistry, and this is regarded as the most important part of the course. Individual instruction is given during these hours, which are spent on experiments designed to fix on the mind of the student the theories and the descriptive matter of the lectures. Purely mechanical work is made impossible by

the nature of the experiments and by the instructor's frequent personal intercourse with the student. Recitations are held every two weeks on the matter of the preceding lectures, and supplemented with monthly written examinations.

Remsen's text-books are used, more as books of reference than as text-books, the student being encouraged to take full notes of the lectures, and to rely on them. For those who may wish to pursue the subject farther, elective courses are given in qualitative analysis, quantitative analysis, and organic chemistry. The first two courses, from the nature of the subject, are conducted almost wholly by means of laboratory work. The design is to give the student a complete and practical training in all the common methods of analysis, so that he may be fitted to undertake successfully any variety of analytical work. The course in organic chemistry consists of a series of lectures on the various classes of organic compounds, together with laboratory work, to illustrate the methods of synthesis and analysis of these compounds.

Natural History. — The Natural History course is open to undergraduates as an elective study. Botany is the first branch of study in the course. The principles of structural and morphological botany and vegetative reproduction are taught by examination of the higher plants, while vegetable histology and infusorial plants are carefully studied with the aid of the microscope. Human Physiology and Anatomy are studied from the text-book and illustrated with human skeletons, a manikin, and histological sections for study with the microscope. Dissections of lower vertebrates are made by the student. Zoölogy is studied by means of text-book and lectures during the second term of Junior year. In the first term of Senior year, Geology is studied from text-book, and illustrated by means of maps and systematic collections of rocks and fossils.

Mineralogy and Biology are studied in the second term of Senior year. The course in mineralogy is designed to help the student to become acquainted with the more common minerals, and to teach him the methods employed in qualitative and quantitative blowpipe analysis. The course in biology makes the student acquainted with typical forms of plant and animal life, by careful dissections and preparations for study with the microscope.

Electrical Engineering. — The practical work of the course begins in the wood-shop, where each student is supplied with a bench and set of tools, and works under the immediate supervision of the instructor. The metal working of the second year is carried on in a large machine-shop in Boston, each student working with and under the direction of a regular machinist.

In addition to the regular physical laboratory work, engineering students are instructed in the care and management of the storage battery, engine, dynamos, and lamps. One of the fourth-year engineers is placed in charge of the storage battery; others take turns in running the dynamos for the arc and incandescent lighting of the library, chapel, and laboratories. A large amount of work is also done in testing engines, dynamos, and motors, and in determining characteristic curves and efficiencies. Those who are skilful in the use of tools construct apparatus for the work they are engaged in, and for the general use of the laboratory. All current and potential indicators, rheostats, switch-boards, switches, keys, and cut-outs used in the dynamo-room, several of the dynamos, also many of the galvanometers, resistance-coils, and bridges used in the laboratory have been thus constructed. All wiring connected with the electric-light installation is also done by students.

During the fourth year, Thompson's Dynamo-Electric Machinery, Kapp's Electrical Transmission of Energy, and

Fleming's Induction of Electric Currents are read and fully discussed. Lectures on electrical theory, telegraphy, telephony, electro-metallurgy, wiring, systems of electrical distribution, railway work, and dynamo-designing are given, and numerous electrical problems are solved. Dynamos and motors of various types are designed, and drawings of them made, not indeed so much for the purpose of fitting students to design dynamos, as to fix firmly in mind the principles underlying the construction of such machinery. Topics are assigned to be investigated, or worked out, and presented to the class in the form of papers.

Before graduation each student presents a thesis on some electrical subject to which he has given special attention during the last year of his course.

Civil Engineering. — Instruction in Civil Engineering is conducted by means of text-books and lectures, laboratory work and practice, in the drafting-room and in the field.

In Surveying, the use and adjustment of instruments is taught by work in the field, so that students become familiar with the methods of land, topographical, city, railroad, and mine surveying.

The work in the drafting-room begins with plane geometrical problems, freehand drawing, and lettering; followed by mechanical drawing, problems in descriptive geometry, shades and shadows, plotting from field notes of actual surveys, topographical drawing, and map-making. The production of finished plans is required; also the drawing of details of engineering structures and machines necessary for the construction of railroads, sewer systems, steam and electric plants.

The course in Roads and Railroads includes study in the class-room of the principles governing the economical location of railroads and highways, as well as consideration of the cost of their construction, maintenance, and operation. The field-work embraces the survey and location of a

line of railroad, and includes setting slope-stakes, locating turnouts, culverts, and bridges, with the preparation of specifications and estimates.

In Descriptive Geometry, the instruction is given by means of text-book and lectures, illustrated by diagrams and models. The problems are worked out upon the blackboard, and many original questions are added, to make the student thoroughly familiar with this branch of mathematics.

Instruction in the Steam Engine is given by means of text-books, lectures, drawings, and practice with engines and boilers. Frequent reference is made to modern examples of engines and boilers of various kinds. Students have practice in applying the steam indicator for the determination of the power developed by the engine.

In Applied Mechanics the student is taught to design structures and machines, beginning with the study of forces, centre of gravity, moment of inertia, determination of stresses in frames and trusses, including investigation of the strength and elasticity of materials, theoretically in the class-room, and experimentally in the testing laboratory. A ready knowledge of mathematics is essential in this department, since frequent use is made of analytic geometry, trigonometry, and the calculus.

The course in Hydraulics embraces theoretical and experimental or applied hydraulics. Numerous problems are solved by the student, requiring the application of formulæ to cases of frequent occurrence in practice. A study is made of the published reports of engineers upon the experimental determination of the flow in conduits and sewers.

The instruction in Bridge Designing is based upon the analytic and graphic computation of stresses, as taken up in Applied Mechanics. The principles therein developed through the study of the strength and elasticity of materials are applied to computation for determining the several parts of highway and railroad bridges.

Buildings and Equipment.

BUILDINGS.

The college buildings consist of three dormitories: College Hall, containing the recitation rooms, and chemical and physical laboratories; Barnum Museum; Goddard Chapel; the Gymnasium; and the Library.

LIBRARY.

The Library contains twenty-eight thousand bound volumes and about eleven thousand pamphlets. It includes, in a separate room, the private library (numbering fourteen hundred and forty volumes) of the late Rev. William H. Ryder, D.D., of Chicago. In addition to the general library, there is the collection of the Universalist Historical Society (thirty-five hundred volumes and several thousand pamphlets) to which, on application, students have free access. On the tables are sixty periodicals; and in the same building a reading-room, maintained by the students, supplies the daily and weekly papers. Provision for the purchase of books is chiefly from the income of the Joy Library Fund, now amounting to twenty thousand dollars. The average annual increase by donation and purchase, for the last five years, has been thirteen hundred volumes. The Library is open to all members of the College every day in the week except Sunday.

MUSEUM.

The Barnum Museum of Natural History was built in 1883–84 from a donation of the late P. T. Barnum, to whom also the College is chiefly indebted for the extensive collection of zoölogical specimens that has since been

acquired. These cover all the grand divisions of the animal kingdom, and include in some departments many examples of rare genera and species, thus offering to the student of zoölogy illustrations of sufficient range to teach the relations between the lower and higher forms of animal life.

The Museum has likewise furnished a long-needed depository for the other collections — mineralogical, geological, and botanical — that have been gathered since the founding of the College, with a constant aim to acquiring a series of specimens which should be valuable in actual teaching. Of the mineralogical and geological specimens a considerable part still await classification and exhibition. Among others already displayed are systematic collections illustrating the chemical and physical properties of minerals. The botanical specimens comprise, beside a full representation of the flora of New England, numerous examples from the Southern and Western States. The total number of specimens of all kinds included in the Museum is over twenty thousand.

The laboratories and lecture rooms of the department of Natural History are also located in the Museum building. Among appliances useful in practical work, the geological laboratory has instruments for making rock-sections and for polishing minerals; the mineralogical laboratory possesses the apparatus necessary for the determination of minerals and the analysis of ores; the biological laboratory also is well supplied with the instruments needed for histological research, including a large Thoma microtome and several compound microscopes.

GYMNASIUM.

The Goddard Gymnasium, the gift of Mrs. Mary T. Goddard, is fully equipped with the best modern apparatus, and provided with shower-bath, tub-baths, dressing-rooms, and lockers. It is open through the college year, and instruc-

tion is given four times a week from the middle of November to the middle of March.

Gymnastic exercise is optional, but is recommended to all students. The kind of exercise depends on the physical condition of each man, as determined by careful examination, including measurements and strength tests. The special exercises of each student are directed by the instructor; the general exercises are in classes. The class work consists of free movements, exercises with wands and light dumb-bells, and on the parallel bars, vaulting bar, and vaulting horse. It is the intention in all cases to make the exercises of such a character that the weakest as well as the strongest person can perform them with profit.

PHYSICAL LABORATORY.

The Physical Laboratory contains apparatus sufficient for illustrating all the general principles of Physics.

The equipment includes a dividing engine, chronograph, cathetometer, sextant, microscope, saccharimeter, polariscope, spectroscope, spectrometer, optical bench, Rowland's gratings, and charts of solar spectrum; also apparatus for projection with sunlight, lime and electric lights. In the field of electricity the equipment is especially good, including standards of resistance, of capacity, and of electromotive force, besides a variety of instruments for accurate measurement.

ELECTRICAL LABORATORY.

The Electrical Laboratory is supplied with the apparatus needed for testing and experimental purposes; among which may be mentioned ammeters, voltmeters, Wheatstone bridges, reflecting galvanometers, an electronometer, Sir William Thomson's standard balances, condensers, a large induction coil, and, in process of construction, an electrodynamometer with coils a metre in diameter.

The dynamo-room contains a B. F. Sturtevant high speed automatic engine of about twenty-five horse-power, belted to a line of shafting, the driven pulley being connected to the shafting through an Emerson power-scale reading to forty horse-power. From this shafting are belted an American and a Ball arc-light dynamo, a small alternator, a special 4,000-watt machine for experimental purposes, and a pair of 110-volt 1,500-watt machines for the Library three-wire installation, and for charging the storage battery. Three other machines are in process of construction, — one of 12 kilo-watts and 110 volts. Steam power is furnished by two Whittier tubular boilers.

Belonging to the dynamo-room are over twenty arc-lamps and a supply of electrical testing instruments. Adjacent is the battery-room, the main battery consisting of sixty of the large cells of the American Accumulator Company. These cells are in constant use for experimental and motor work, and for lighting. Connected with the laboratories is a work-shop containing several lathes, with an outfit of wood and metal working tools used in the construction and repair of apparatus. Most of the rough and some of the fine apparatus used in the dynamo-room and laboratories is manufactured in this room.

CHEMICAL LABORATORY.

The Chemical Laboratory has desks for forty-three students, and is supplied with reagent bottles, sinks, and hoods. The lighting is by electricity. The store-room contains a full stock of ordinary chemical apparatus, a full set being furnished to each student working in the laboratory. Students in the advanced courses work in the private laboratory of the professor in charge, and have access to the weighing-room, where there are accurate chemical balances for quantitative work ; standard books of reference are also at hand.

General Information.

RELIGIOUS OBSERVANCES.

Goddard Chapel, erected in 1882–83, is the gift of Mrs. Mary T. Goddard as a memorial of her husband, the late Thomas A. Goddard. Morning prayers are held daily, at which attendance is required. The care of the pulpit on Sundays devolves upon the President of the College; but an effort is made to give variety and interest to the preaching services by frequent exchanges with neighboring clergymen. Attendance upon Sunday services is required; but permission is freely given to those who desire to attend elsewhere. A Sunday-school is maintained in connection with Sunday worship, and a Bible class, composed of students, is in charge of one of the professors.

The Russell Lecture, established in accordance with a bequest of the late James Russell, of Arlington, is delivered before the Trustees, Faculty, and students on the first Sunday of the College year, by either a clergyman or a layman, on a subject prescribed by the testator.

REQUIRED AND ELECTIVE STUDIES.

The programme requires sixteen to eighteen recitations a week or their equivalent, except in the second term of the Senior year, when thirteen are required. Two consecutive hours of work in the laboratories, or in drawing, and three hours in all other practical work, are reckoned as one programme hour. While the electives designated for each class are open to the students of that class, electives designated for a lower class may also be taken, but special permission must be obtained to take an elective of a higher class. In addition to the regular electives requisite to fill out the programme, extra electives may be taken if, in the judgment of the Faculty, they can be profitably pursued.

Choice of electives or optional studies for the first term must be signified in writing to the Faculty on or before the first Saturday of the College year, and for the second term, on or before the last Saturday preceding mid-year.

SPECIAL STUDENTS.

Students, wishing to pursue a special course of study, who are not candidates for a degree, are subject to the following regulations: —

1. All applicants for special courses shall satisfy the instructors in those courses that they are prepared to pursue the same.

2. Every special student having less than fifteen programme hours a week will be required to obtain seventy per cent in each course pursued by him. This rule shall apply to the work of the term as well as to examinations.

3. Special students under rule 2 who fail in any course will be required to take that course again the next year.

4. Special students whose programme hours number fifteen or more will be treated, as regards conditions, in the same way as regular students.

5. A special student, on leaving college, shall be entitled to a certificate giving the percentage attained in each course pursued, and signed by the President and Secretary.

TERMS AND VACATIONS.

The College year begins on the third Thursday in September, and ends at Commencement, the third Wednesday in June. The year is divided into two terms of eighteen weeks each. There are no College exercises during a recess of two weeks at Christmas, three days at Thanksgiving, and three at Fast Day.

EXPENSES.

The tuition is one hundred dollars a year.

Students working in the laboratories are charged for certain materials used, and for breakage. Any damage done by students to college property is charged in the term bills. Students board in commons at $3.50 per week; in private families at $3.50 to $5.00. Other expenses vary with the

economy of each student. Students furnish their own rooms.

The charges for each year are contained in two bills, of which the first is made at the middle of the year, and is payable on the first day of March ; the second is made immediately after Commencement, and is payable on the first day of the following college year; but the second bill of the Senior year must be settled by the Saturday before Commencement.

The following estimates represent the necessary annual expenses : —

Tuition	$100.00	$100.00
Gymnasium	4.00	4.00
Half room-rent, with care	15.00	75.00
Board, $3.50 to $5.00 a week	133.00	190.00
Total	$252.00	$369.00

SCHOLARSHIPS.

Awards of scholarships are made by the Board of Trustees on the recommendation of the Faculty. The obtaining of a scholarship for one year does not constitute any title to a second nomination.

Applications for scholarships and other aids must be made to the Faculty on or before the first day of November ; and if the applicant be a minor, must be sanctioned by his parent or guardian. No one need apply who has not made satisfactory progress, or who has come under any grave censure in the course of the year.

The following scholarships of one hundred dollars each are awarded annually : —

Three State Scholarships, — Established in accordance with a resolve of the Commonwealth.

Five Howland Scholarships, —Established from the income of the bequest of the late Edwin Howland, of South Africa.

Five Walker Mathematical Scholarships, — Established in honor of the late William J. Walker, M.D., of Newport, R.I., and payable from the income of the Walker Fund.

Four Prize Scholarships of Natural History, — Olmstead, Leavenworth, Miner, Tully, from funds contributed by the late Charles Hyde Olmstead, of Hartford, Conn.

Two Moses Day Scholarships, — Founded by the late Moses Day, of Roxbury.

The A. A. Miner Scholarship, — Founded by A. A. Miner, D.D., of Boston.

The Rebecca T. Robinson Scholarship, — Founded by the late Charles Robinson, LL.D., of Newton.

The Patterson Scholarship, — Founded by A. J. Patterson, D.D., of Roxbury, in the name of A. J. and Jane L. Patterson.

The William Oscar Cornell Scholarship, — Founded by William Oscar Cornell, of Providence, R.I.

The Ara Cushman Scholarship, — Founded by Ara Cushman, of Auburn, Me.

The Laura A. Scott Scholarship, — Founded by Mrs. Laura A. Scott, of Ridgefield, Conn.

The Stow Scholarship, — Founded by Mrs. Eugenia D. Stow, of Meriden, Conn.

The Norcross Scholarship, — Founded by James A. and Mrs. Mary E. Norcross, of Worcester.

The Anderson Scholarship, — Founded by John M. Anderson, of Salem, in the name of John M. and Rebecca Anderson.

The Travelli Scholarship, — Founded by Mrs. Emily R. Travelli, of Newton.

The Whittier Scholarship, — Founded by Charles Whittier, of Roxbury, in the name of Charles and Eliza Isabel Whittier.

The Talbot Scholarship, — Founded by Newton Talbot, of Boston.

The Simons Memorial Scholarship, — Founded by Mrs. Mary A. Simons, of Manchester, N. H., in memory of Hiram, H. Augustus, and Frank Simons.

The Hannah L. Whiting Scholarship, — Founded by Mrs. Hannah L. Whiting, of Hingham.

The Martha Goldthwaite Memorial Scholarship, — Founded by Willard Goldthwaite, of Salem.

The Andrew J. Clark Memorial Scholarship, — Founded by Mrs. Abbie B. Clark, of Orange.

The Sarah E. Sayles Memorial Scholarship, — Founded by Albert W. Sayles, of Lowell.

The Cousens Scholarship, — Founded by John E. Cousens, of Brookline, in the name of John E. and Sarah C. Cousens.

The Benjamin F. Spinney Scholarship, — Founded by Benjamin F. Spinney, of Lynn.

The Henry F. Barrows Scholarship, — Founded by Henry F. Barrows, of North Attleborough.

The Ellery E. Peck Memorial Scholarship, — Founded by Henry Rollins, of Bangor, Me. [The income of this scholarship is not at present available.]

The J. H. Morley Memorial Scholarship, — Founded by Herbert Morley Small, of Baldwinville.

The Edwin H. Chapin Memorial Scholarship, — Founded by friends of the late E. H. Chapin, D.D., in New York City.

The Thomas A. Goddard Memorial Scholarship, — Founded by Mrs. Mary T. Goddard, of Newton.

The Hosea Ballou 2d Memorial Scholarship, — Founded by Mrs. Mary T. Goddard, of Newton.

The George W. Quinby Memorial Scholarship, — Founded by the widow and children of the late George W. Quinby, D. D., of Augusta, Me.

The Henry E. Cobb Scholarship, — Founded by the late Henry E. Cobb, of Boston.

The Mary Ann Ward Scholarship, — Founded by Sylvester L. Ward, of Boston.

The Maria P. Winn Scholarship, — Established from a bequest of the late Mrs. Maria P. Winn, of Woburn.

The J. D. Peirce Scholarship, — Founded by the children and other relatives of the late J. D. Peirce, D. D., of Attleborough.

Olney Arnold, of Pawtucket, R. I., and Isaac P. T. Edmands, of Boston, each pay one hundred dollars annually for a term of years.

The following Universalist Parishes have provided for annual payments of one hundred dollars each : —

Newton, Boston (Columbus Avenue), Somerville (Cross Street), Roxbury, Augusta (Maine).

The following scholarships of fifty dollars each are awarded annually : —

The A. A. Miner Scholarship, — Founded by A. A. Miner, D.D., of Boston.

The Perkins Scholarship, — Founded by James D. Perkins, of Brooklyn, N.Y.

The Moses Day Scholarship, — Founded by the late Moses Day, of Roxbury.

The Greenwood Prize Scholarship in Oratory, — Founded by the late Mrs. Eliza M. Greenwood, of Malden, and given to such student as shall have made the best attainments in Oratory.

Appointments. — The pay of a monitor is *twenty dollars* a year; that of the bell ringer, and the organist, *one hundred and fifty dollars* each.

PRIZES.

GODDARD PRIZES. — In the second term of the academical year three prizes of *fifteen dollars* each are assigned from the Goddard Prize Fund, as follows: —

A prize for the best examination in Plato's Symposium, or the Agamemnon of Æschylus, including an account of the author and his works.

A prize for the best Latin prose translation, by a member of the Sophomore class, of the third section of Chapter X. in Liddell's History of Rome.

A prize for the best examination in the Mathematics of the Freshman year.

The translations must be left at the President's office by the first day of May, in sealed envelopes, accompanied by sealed letters containing the authors' names.

RHETORICAL PRIZES. — Six prizes are awarded, as follows: —

Two prizes, of *twenty* and *ten dollars* respectively, to the best readers of the Senior class.

Two prizes, of *twenty* and *ten dollars* respectively, to members of the Junior class, for the best exhibition of improvement and skill in elocution.

Two prizes, of *twenty* and *ten dollars* respectively, on the same conditions, to members of the Sophomore class.

The selections for reading and declamation must be approved by the Professor of Oratory. The names of competitors for the prizes in reading and elocution must be handed to the President at least two weeks before the day of trial.

ENTRANCE EXAMINATION PRIZES. — Two prizes, of *thirty* and *twenty dollars* respectively, are awarded for the best entrance examinations. No one will be considered a candidate for such prize unless he has passed at the regular examinations in all the subjects required for admission to the College, and has been admitted without conditions. These prizes are payable at the end of the first term in College.

The foregoing prizes are not awarded, unless, in the opinion of the respective judges, there is sufficient merit in the several contests to warrant their distribution.

HONORS AND DEGREES.

Special Honors will be conferred at Commencement upon any member of the graduating class who shall have complied with the following conditions: —

1. He must have attained grade A (over eighty-seven per cent) in the required work of the subject in which he desires Honors, and grade B (seventy-five per cent) in the average of all the studies of his course for at least the two years preceding.

2. He must have passed satisfactory examinations on as much extra work in the study in which he desires Honors as would be equal to three hours a week for a year.

3. In this and a cognate study, he must, if a candidate for A. B. or Ph. B., have taken the equivalent of five hours a week for a year of elective work, and must have passed the examinations on them with distinction.

Departments are open for Honors as follows: —

I. Philosophy, II. Classics, III. Modern Languages, IV. Mathematics, V. Physics, VI. Chemistry, VII. Natural History, VIII. Civil Engineering, IX. Electrical Engineering.

A student is expected to apply for Honors as early as the middle of his Junior year, and may make up his standing in any study in which he is deficient. The grade of Honors, as well as the department, will be mentioned in the diploma and printed in the Catalogue. Special requisitions may be made in any department.

Honorable Mention will be made in the Commencement programme and the annual Catalogue, of a student who has attained grade A or B in a subject to which, during the two years preceding, he has given the equivalent of not less than six hours a week for a year.

The Degree of Bachelor of Arts will be conferred at Commencement by the Trustees, upon recommendation of

the Faculty, upon students who shall have completed the Classical course in a satisfactory manner.

The Degree of Bachelor of Philosophy will be conferred upon students who shall have completed the Philosophical course under the same conditions.

The Degree of Bachelor of Mechanic Arts will be conferred upon students who shall have completed one of the Engineering courses under the same conditions.

Students of the Classical and Philosophical courses may so arrange their elective work as to make it possible to obtain the degree of Bachelor of Mechanic Arts after a post-graduate course of one year in the Engineering department.

The Degree of Master of Arts will be conferred upon graduates of Tufts College, or upon graduates of other colleges whose course of study has been equivalent to that required at Tufts College for the degree of A. B. or Ph. B., who shall complete an approved course of advanced study in one, or at the most two departments, during a residence of not less than one year, and shall either prepare a thesis or pass a satisfactory examination upon the work performed, as the professor in charge shall direct.

Candidates for this degree must make a written application to the Faculty before October first of the College year in which the degree is to be conferred, and if the degree is not taken after one year's study, he must also give a second notice three months before receiving the degree. The condition of residence may be waived by special permission.

The Degree of Master of Mechanic Arts will be conferred on college graduates who hold the degrees of S. B., A. M. B., or C. E., under the same conditions as the degree of Master of Arts.

DEGREES CONFERRED AT THE THIRTY-FIFTH ANNUAL COMMENCEMENT, JUNE 17, 1891.

Honorary Degrees.

A.M.

JOHN DAVIS BILLINGS.
ARTHUR GUINESS ROGERS.

D.D.

CHARLES ELWOOD NASH, A.B., B.D.

LL.D.

WILLIAM EVANS DARBY.
JOHN WILKES HAMMOND, A.B., L.L.B.
JOSEPH H. WALKER.

Degrees in Course.

A.M.

HARLEY NELSON PEARCE, A.B., 1880.
WILLIAM SHAW WHITE, A.B. (Brown University, 1888.)

A.M.M.

ALBERT DULEY BABSON, A.M.B., 1890.

A.B.

WILLIAM KENDALL DENISON.
GEORGE MAYO GERRISH.
ARTHUR WILDER GROSE.
GIDEON ISAAC KEIRN.
FREDERICK WILLIAM PERKINS.
ELMER ELBERT POWELL.
CHARLES LIVINGSTON STOVER.
GEORGE GILMAN TOWLE.
HIRAM AUSTIN TUTTLE.

Ph.B.

BENJAMIN FRAZIER CUNNINGHAM.
GEORGE CARROLL DOLLIVER.
CHARLES ROLLINS TUCKER.

A.M.B.

CHARLES OSCAR BOURNE.
ROBERT POND BROWN.
CHARLES STAPLES DAVIS.
WARREN HERBERT FISKE.
WILLIAM COURTNEY POTTLE.
JOSEPH WARREN PUTNAM.
FRANK HENRY STEPHENSON.
FRED WARREN TEELE.
BENJAMIN FRANKLIN THOMPSON.

B.D.

LUTHER WESTON ATWOOD.
HARRY FAY FISTER.
HENRY REUBEN ROSE.
WILLIAM SHAW WHITE.

HONORS AWARDED AT THE THIRTY-FIFTH ANNUAL COMMENCEMENT.

Latin.

WILLIAM KENDALL DENISON.
GEORGE GILMAN TOWLE.
HIRAM AUSTIN TUTTLE.

Chemistry.

GEORGE CARROLL DOLLIVER.

AWARDS OF PRIZES, 1890–1891.

For Examination in Mathematics.

A prize to FRANK GEORGE WREN of the Freshman Class.

For Oratory.

Prizes to ARTHUR WILDER GROSE and FREDERICK WILLIAM PERKINS of the Senior Class; FRANK ALLEN NORTH and WILLIAM SOUTHWICK GRAY of the Junior Class; WILLARD SHEPARD MARTIN and JOSEPH BYRON GROCE of the Sophomore Class.

DIVINITY SCHOOL.

Faculty of the Divinity School.

ELMER H. CAPEN, D.D., *President.*
THOMAS J. SAWYER, D.D., *Dean.*
CHARLES H. LEONARD, D.D.
WILLIAM G. TOUSEY, A.M., B.D.
GEORGE T. KNIGHT, A.M., B.D., *Secretary.*
GEORGE M. HARMON, A.M., B.D.
ANSON B. CURTIS, PH.D.
DAVID L. MAULSBY, A.B.

HENRY I. CUSHMAN, D.D.
ARTHUR G. ROGERS, A.M.

Students.

RESIDENT GRADUATES.

Fister, Harry Fay, B. D.	*East Cambridge*	86 Thorndike St.
Torsleff, Andrew Jackson, B. D.	*West Somerville*	22 Weare St.

Senior Class.

Bilkovsky, Anthony	*Detroit, Mich.*	West Hall, 22.
Blackford, Harry, A. B. (National Normal Univ.)	*El Dorado, Ohio*	West Hall, 25.
Conner, Ralph Everett	*So. Newmarket, N. H.*	West Hall, 28.
Eddy, William Best, A. B.	*Troy, N. Y.*	West Hall, 13.
Evans, Frederick Waldron	*Chelsea*	West Hall, 21.
Maxham, Herbert Olin, A.B.	*Medford*	3 Marshall St.
Moulton, Herbert Frank	*West Somerville*	50 Curtis St.
Sayles, John Augustus	*Somerset*	West Hall, 24.
Williams, Lester Ellsworth	*Nottingham, N. H.*	West Hall, 21.

Middle Class.

Gifford, Franklin Kent, A. B. (Harvard.)	*Somerville*	359 Beacon St.
Markley, Howard Anthony	*Philadelphia, Pa.*	West Hall, 26.
Maxwell, Harley Davidson	*Moore's Mills, N. B.*	West Hall, 29.
Moore, Leslie	*Somerville*	West Hall, 28.

Junior Class.

Ball, Clarence Leon	*Cambridge*	West Hall, 30.
Brown, Allen	*Cadillac, Mich.*	West Hall, 31.
Foster, Augustine Norwood	*Meriden, Conn.*	West Hall, 32.
Gerrish, George Mayo, A. B.	*Woburn*	West Hall, 23.
Grose, Arthur Wilder, A. B.	*Abington*	West Hall, 23.
Henry, Carl French, B. S. (Buchtel.)	*Geauga Lake, Ohio*	West Hall, 31.
Hoyt, Hervey Hastings	*Peabody, Kansas*	West Hall, 24.
Leighton, George Edward	*Dexter, Me.*	West Hall, 32.
Morrison, Ira Daniel	*Brookings, So. Dak.*	West Hall, 22.

Perkins, Frederick William, A. B.	*Roxbury*	West Hall, 26.
Petrie, Omer Genere	*El Dorado, Ohio*	West Hall, 25.

Butler, Thomas	*Philadelphia, Pa.*	West Hall, 30.
Dickins, Curtis Hoyt	*Philadelphia, Pa.*	154 Boston Ave.
Lesh, Henry Edgar	*West Alexandria, O.*	West Hall, 29.

Sub-Junior Class.

Andrus, Elmer Charles	*Grand Rapids, Mich.*	West Hall, 19.
Blair, Arthur Adolphus	*Manchester, N. H.*	West Hall, 27.
Cardall, Alfred James	*Bay City, Mich.*	West Hall, 27.
Roscoe, Tom, M. D. (Vt. Med. Coll.)	*Somerville*	178 Central St., Somerville.
Smith, Ashley Auburn	*Auburn, Me.*	5 Emery St.
Tillinghast, James Dannals	*Buffalo, N. Y.*	West Hall, 27.
Welch, Charles DeMerritt	*Lynn*	East Hall, 25.
Wells, Charles Henry	*Barre, Vt.*	West Hall, 23.

Special Students.

Blackford, Alfred Newton	*El Dorado, Ohio*	West Hall, 25.

SUMMARY.

Resident Graduates	2
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Admission to the Theological Course.

Candidates unknown to the Faculty must bring satisfactory testimonials of good character. They must believe in the Christian religion, and have a sincere purpose to devote their lives to the Christian ministry. It is expected that they will present themselves on the day preceding the first day of the academic year.

Bachelors of Arts are admitted to the Junior Class without examination. Candidates for the Four-Years Course are examined in some one of the Greek classics or in the Greek of the Gospels, and in the English studies usually pursued in High Schools.

Applicants may be admitted to the school for any period of not less than one year. Those applying for admission to advanced standing are examined in the studies which have been pursued by the class they propose to enter.

It is earnestly recommended that all who are contemplating a course of theology should take, as preliminary, a full collegiate course of study. The call is for men of liberal culture, and academic discipline is of great value as a preparation for professional studies. It has not been thought expedient, however, to make such a requirement, for it has been found that earnest and capable men aspire to the Christian ministry whose circumstances forbid so extensive preparation. To meet the wants of such, and yet provide for thorough and comprehensive development, a four-years course has been instituted.

Course of Study.

SUB-JUNIOR CLASS.

Psychology. — The Intellect; The Sensibilities; The Will; Leading Questions of Mental Philosophy.

Logic. — The First Principles of Logic; Concepts and Propositions; Immediate Inference; Deduction; Induction; Analogy; Hypothesis.

Rhetoric. — Principles of Effective Speech; Rhetorical Analysis; Themes.

Oratory. — Practical Exercises in the reading of Scripture and Hymns.

JUNIOR CLASS.

Logic. — Fallacies; Analysis of Arguments; Ethics of Belief.

Old Testament. — Rudiments of Hebrew Grammar; Vocabulary and Word Studies; Reading of Easy Prose, with Criticism; History of Hebrew Religion.

New Testament. — Hermeneutics; Criticism; Exegesis of Matthew's Gospel, with parallel and supplemental passages from the other Synoptics; The Life of Christ; Theology of The Synoptic Gospels.

Church History. — History of the Church, of the Sects, and of Doctrines, from the Apostles to the Present Time; History of Doubt.

Homiletics. — History of Preaching; The Idea and Structure of the Sermon; Homiletical Analysis.

Oratory. — Practice in the reading of Scripture, Hymns, and Sermon-literature.

MIDDLE CLASS.

Old Testament. — I. Biblical Sociology: The Development of Jewish Political and Religious Life; Critical and Practical Exegesis of Selected Passages.

II. Messianic Prophecy: The Ideal Social Organism; Criticism and Exegesis of Messianic Texts; Old Testament Introduction, Literature, and Theology.

New Testament. — Criticism and Exegesis of the Fourth Gospel; Johannine Theology.

Ethics. — The Moral Nature; Ethical Theory; Practical Ethics.

Systematic Theology. — Theology; Anthropology; Soteriology; Eschatology; Critical Study of Modern Doctrines.

Homiletics. — Study of Sermons of Eminent Preachers; Lectures; Sermon Writing and Preaching.

SENIOR CLASS.

New Testament. — Criticism and Exegesis of Selected Passages from Romans, 1 Corinthians, and Hebrews; Pauline Theology.

Comparative Theology. — The Religions of Ancient Egypt and Chaldea; Hinduism; Buddhism; Confucianism; Taouism; Parseeism; Mohammedanism.

Ethics. — Types of Ethical Theories; Christian Ethics.

Natural Theology. — Theistic Arguments; Special Studies with reference to the Evidences of Final Causes in Nature; Science and Religion; Anti-Theistic Theories.

Homiletics. — Lectures on Preaching; Sermon Writing and Preaching.

Church Polity. — The Polity of the Apostolic Church; The Polity of Special Churches Compared; The Government and Discipline of the Universalist Church.

Pastoral Care. — Personal Qualifications and Duties of the Pastor; The Administration of Religion in General; Organized Work in the Parish.

Departments of Instruction.

PSYCHOLOGY.

PROFESSOR TOUSEY.

Four hours a week for the first term of the Sub-Junior year.

The direct study of mental phenomena is encouraged, and the student is trained in the methods of psychological research. At suitable points attention is called to the great philosophical questions that have their origin in the study of mind. The aim throughout is eminently practical; and while seeking a consistent theory of mental phenomena, there is constant reference to the professional uses of the science, — to the bearing of psychological law upon self-culture, and upon the arts of instructing and persuading men. Special effort is also made to supply the psychological data of the subsequent studies of the course.

LOGIC.

PROFESSOR TOUSEY.

Three hours a week for the second term of the Sub-Junior year, and two hours a week for the first term of the Junior year.

The Sub-Juniors receive instruction in the usual topics of an academic course. Considerable time is given to logical analysis, and the employment of the inductive method as respects both discovery and proof.

The Juniors are exercised more especially in the application of logical principles. A review of the fallacious tendencies of the mind is followed by an extended study of Fallacies, as exemplified in the practical reasoning of men.

The course concludes with a brief study in the Ethics of Belief. Under this head the nature and conditions of belief are discussed, the general principles of evidence reviewed, and certain current misconceptions exposed, — the aim being to enforce the duty of rationalizing our beliefs, and while pointing out the limitations of the reason, to develop confidence in its actual findings, and a proper fortitude of conviction.

RHETORIC.

PROFESSOR LEONARD.

Three hours a week for fourteen weeks with the Sub-Juniors.

The subjects of study are those usually discussed in the best treatises on Practical Rhetoric, especially in the chapters which deal with the art of constructing discourse, and with the methods of applying the principles of rhetoric in actual literary work.

OLD TESTAMENT.

DR. CURTIS.

Four hours a week for the Junior year, and two for the Middle year.

I. HEBREW: The aim of this course is to give the student such a working knowledge of the language as will enable him sympathetically to study the religious life of the Hebrew people.

The first part of the year is devoted to the grammar and the vocabulary of the more common words, and to the reading of easy prose. As soon as possible some exegetical and critical work is added, in which an effort is made to ascertain the dates and contents of the first six books of the Old Testament.

A portion of the year is devoted to a brief survey of Jewish history and religion as reconstructed by the latest

authorities, chiefly with a view to acquaint the students with the questions at issue.

The method of work is largely inductive, and involves lectures, discussions, recitations, and occasional examinations.

The text-books used are Bissell's Practical Hebrew Grammar, the Hebrew Old Testament, and Toy's History of the Religion of Israel.

II. Hebrew Sociology: This and the following courses are for the Middle Class. The first part of the year will be devoted to tracing the origin and development of social, political, and religious institutions from the rise of Judaism to its decay; and the latter part, to the study of the ideals of the leading Hebrew minds.

An attempt will also be made to connect this study with practical sociological questions of the present day. The method is substantially as above, and the text-book is the Revised Version of the Bible.

III. Messianic Prophecy: The purpose of this course is to trace the growth of the Messianic idea throughout the Old Testament. The "Messianic Texts" will be studied as to their origin and meaning, especially with relation to Jesus of Nazareth.

The Class will use Briggs's Messianic Prophecy, with references to Spurgeon, Cheyne, W. R. Smith, Hengstenberg, Kuenen, and Wellhausen.

IV. Old Testament Introduction: During the latter part of the year Courses II. and III. will be combined, for the study of the various books of the Old Testament, with reference to authorship, dates, purpose, contents, and for tracing the development of Old Testament Theology.

References are made to works on Introduction, by Driver, Keil, Bleek, Wright, and others.

NEW TESTAMENT.

PROFESSOR HARMON.

Four hours a week for the Junior and Middle years, and two hours a week for two-thirds of the Senior year.

I. CRITICISM: The origin, contents, and history of the New Testament writings; the History of the Canon during the first two centuries; and the historical and archæological problems involved.

The aim of this work is to make the student intelligent as to the leading questions in New Testament criticism and the various opinions thereon, and to form in him the habit of independent and sound critical judgment. The method pursued is to deal with these questions as they naturally arise in the work of Exegesis. Topics are assigned, and references given to leading authorities in the Library, which the student is to consult, making statements of the different opinions and the grounds given for the same, comparing them with each other and with such facts as are at command, and from such comparison drawing his own conclusions. This work is supplemented with notes from the professor, and written examinations are held at convenient intervals.

II. EXEGESIS: The Life of Christ from the Synoptic Gospels; the teaching of the Fourth Gospel; selected passages from Romans, and First Corinthians.

The aim is to develop the power of independent, scientific interpretation. The principles of Interpretation are given to the class in notes, and the students are required to apply them to the passages read. It is required that the class discover the main points to be interpreted, without recourse to commentaries, and deal with these points in accordance with right exegetical methods. Later in the course the class is taught the right use of commentaries.

III. New Testament Theology: The course covers the doctrines of Christ contained in the Synoptic Gospels, the Johannine theology, and the doctrinal system of Paul. The aim is to discover the main lines of thought stated and directly involved in the above, and the relations of these to each other. The results of the study appear in the interpretation of the New Testament writings as they are read by the class.

Reference is made to the following named authorities in the library: Schürer, Westcott, Weiss, Reuss, Edersheim, Ewald, Davidson, Abbott, Lardner, Fisher, Keim, DeWette, Meyer, Lange, Olshausen, Alford, Godet, Ellicott, Luthardt, Delitzsch, and Schmid.

CHURCH HISTORY.

PROFESSOR KNIGHT.

Four hours a week for the Junior year.

The purpose is to secure a knowledge of the leading facts and forces in the history of the Christian Church in its various branches. By such a knowledge, discovering the causes now at work in religion, the student obtains a grasp of present facts and problems such as he can obtain from no other source. Incidentally he becomes familiar with theological terms, and is furnished with the tools of theological work. Also he is constantly instructed and inspired by the story of the great and good who have made the Church what it is. And in general, since in some degree the individual grows as the mass has grown, he finds in this study an education, an orderly development of his faculties.

The topics generally studied in regard to each period are: The External Growth of the Church and its Relations to the State; The Internal Organization; Intellectual Life and Doctrine; Moral Life; The Form and Substance

of Worship. In the latter part of the year special study is made of the chief religious sects in the United States ; and lastly, of the History of Doubt.

The books used by the student are mostly contained in the library of the college, and in that of the Universalist Historical Society. They include Migne's edition of the Fathers ; translations of the ante-Nicene Fathers, and others ; the chief secondary authorities on general Church History, — such as the works of Schaff, Fisher, Neander, Alzog, and the special historical works of Fisher, Müller, Dorner, Briggs, Eddy, Ballou.

In preparation for the regular class-room exercise, the student is provided with an analysis of each topic, in order, and with references to original and secondary authorities. The student brings the result of his investigation to the class-room for criticism by his associates and professor. At the completion of each topic the results are organized, and a written review held ; the papers of which are returned with comments as to truthfulness and mode of handling.

The students are also instructed in the methods of original investigation from primary authorities. And, especially in history of doctrines, they prepare several pieces of original work during the year.

COMPARATIVE THEOLOGY.

PROFESSOR KNIGHT.

Three hours a week for the first third of the Senior year.

The primary aim of this study is a general knowledge and a catholic temper regarding the non-Christian religions. A secondary utility is found in that a candid study of the excellences and defects of many religions renders the student more able to reject the false, and more in-

clined to rest in the true, and to give it his confidence and strength.

The sources of information to which the student is referred are the Records of the Past, Müller's edition of Sacred Books of the East, Müller's own writings, the series entitled Non-Christian Religious Systems; and in addition, the works of Rawlinson, Wilkinson, Sayce, Johnson, Barth, Legge, Oldenberg, Elkins, Haug, and others. Considerable use is also made of articles in the Encyclopædia Britannica.

The religions studied are those of ancient Egypt, and Chaldea; Hinduism, ancient and modern; the religions of Gautama Buddha, Confucius, Laou-tsze, Zoroaster, and Mohammed.

The topics noted are: The Deity; the Forms and Meaning of Worship; The Condition of the People, — industrial, intellectual, and moral; and the Power of each Religion for the elevation and future perfection of the human race.

For the study of each topic in turn, the class is furnished with a syllabus and references. The results of their investigations are criticised and co-ordinated by students and professor in the class-room.

The main purposes of this study are further secured by frequent inductive reviews, oral and written.

ETHICS.

PROFESSOR TOUSEY.

Four hours a week for two thirds of the Middle year, and one hour a week for one third of the Senior year.

Analytical and inductive study of the moral experience is followed by an attempt to develop a correct moral theory. Attention is given to the leading questions in ethical philosophy. Such doctrines as Sentimentalism, Hedon-

ism, Utilitarianism, Intuitionalism, and Determinism, are studied, not merely in a critical spirit, but with a view to discover the special aspects of truth for which they stand.

The Seniors attend more especially to Practical Ethics, dealing with the leading contemporary problems, such as Education, Charities, State Aid, Temperance, Socialism, etc. Some attention is also given to Casuistry. The course concludes with a review of what is distinctively known as Christian Ethics. The instruction throughout is shaped to bring into clearness the fundamental principles of morality, and to show their importance in the conduct of the personal life, and in the moral guidance of others.

NATURAL THEOLOGY.

PROFESSOR TOUSEY.

Three hours a week for the Senior year.

The various modes of the theistic argument are reviewed, their grounds scrutinized, and their logical value carefully discussed. The general method here, as in ethics, is to employ treatises available as texts, and to supplement them by means of annotations, lectures, and parallel readings, — the aim being to lead the student to the sources of evidence, and to establish a vigilant and correct method of inquiry. Much importance is attached to the dialectic of the class-room, as securing a ready command of resources, and as a corrective of ill-defined notions and hasty inference. An effort is made to treat subjects in the light of contemporary criticism and the latest developments of science; and, by testing and chastening conclusions, to provide against fanaticism on the one hand, and frivolity of judgment on the other.

SYSTEMATIC THEOLOGY.

PROFESSOR KNIGHT.

Four hours a week for the first term of the Middle year, and three for the second term.

The purpose is to assist the student to think independently on theological subjects and to abide in the consequences. In pursuing this purpose attempt is made to co-ordinate the products of Biblical Theology, Religious History, Natural Theology, Ethics, and, indeed, of all the sources of theological material, and thus to produce a scientific theology. It is believed that such a system will deserve and receive the student's confidence, and will enlist his energies.

The subject has four great divisions: the Doctrine of God, the Doctrine of Man, the Doctrine of Salvation, and the Doctrine of the Future Life. The traditional subdivisions will be noted historically, but will be accepted only so far as they seem to rest on essential principles or the real relations of truth, which alone can be accepted in a scientific process.

The method includes several stages: —

1. The outline history of thought on the topic in hand, or the analysis and classification of opinions and theories according to their logical relations.

2. The collection of the facts, so far as given in the present state of knowledge, and the criticism of the theories on the basis of the facts.

3. The organization of the results in a scientific product.

4. Illustrative applications of the result to practical problems, — ecclesiastical, political, social, and personal.

There is no available hand-book in this study. But constant reference is necessarily made to books used in the departments whose products are here co-ordinated; and of

the books special to this department, much use is made of the theological works of A. H. Strong, Charles Hodge, James Martineau, Robert Flint, J. A. Dorner, H. Martensen, J. Müller, and other representative teachers of all times and faiths.

The student is furnished with references to the various sources of material; he is instructed in the method of inquiry, and his results are criticised in the class-room. The occasional written examinations require original work, in part, and one original essay from each student is required within the year.

HOMILETICS.

PROFESSOR LEONARD.

Two hours a week during the Junior and the Middle years, and three during the Senior year.

The course in Homiletics covers two-thirds of the Junior year and all of the Middle and Senior years, and includes the study of the most characteristic and instructive periods in the history of preaching; dictations and lectures on the idea and the structure of the Sermon; analyses of portions of the Old and the New Testaments, with a view to the homiletical use of texts; the study of printed sermons, with special reference to form, expression, and the character and the range of illustration; the composition and the delivery of sermons, not less than six during the year, all of which are criticised by the class and by the professor; lectures during the Senior year on Helps in Sermon-Preparation, Modes of Development, Style in Spoken Discourse, The Invention and Arrangement of Material, Illustrations, use of Anecdote, Personality in Preaching, Character and Preaching.

Books are prescribed for reading. Original essays bearing on the subject, and written examinations are required.

CHURCH POLITY.

PROFESSOR LEONARD.

Four hours a week for one third of the Senior year.

This course includes a study of the history and the government of the Apostolic Church; a comparison and contrast of the methods of special churches, — Prelatical, Presbyterian, Congregational, — with particular reference to the government and methods of the Universalist Church.

Books are prescribed for reading. Written examinations on all the work are required.

PASTORAL THEOLOGY.

PROFESSOR LEONARD.

Four hours a week for one third of the Senior year.

The course provides for the discussion of pastoral qualifications, — spiritual, mental, social; for the study of the forms and the conduct of public worship; for practical illustration of pastoral oversight and visitation; for the study of the best methods of building and of uniting a parish; for the discussion of the theories of church-work in Sunday-schools, missions, charities; for the study of economic questions in their relations to the pastor's work; and for lectures and dictations upon the official duties of the Christian minister.

Frequent written examinations and original essays on the more important subjects are required.

From year to year the course in Pastoral Theology is supplemented with special lectures from clergymen who are engaged in the active work of the ministry.

ORATORY.

PROFESSOR MAULSBY.

One hour a week for two years.

The object of the instruction in the department of Oratory is to gain a natural as well as reverent manner of reading the Bible and the hymn-book, and also to cultivate in preaching a delivery that shall be forcible and sincere. To this end the class exercises consist of actual practice in reading selected hymns and portions of the Scriptures, with the preaching, in the advanced division, of parts of sermons. The work done is followed by criticism and suggestion from the instructor and the class.

General Information.

RELIGIOUS EXERCISES.

Devotional services are held daily in the chapel. Members of the upper classes prepare sermons and preach them in turn before the class. An active branch of the Y. P. C. U. holds regular meetings.

EXAMINATIONS.

Frequent written reviews are held in all departments; and when any subject is completed the students are required to pass a public written examination thereon.

LIBRARIES AND LECTURES.

Students have free access to the general library of the College; also to the valuable library of the Universalist Historical Society. Important public libraries of Boston are open to students for consultation.

Supplementary lectures, which bear upon the general work of the Christian ministry, and upon special subjects of study, are given at intervals throughout the year by well-known clergymen of the vicinity.

ELECTIVE STUDIES.

Students are permitted to elect studies in other departments of the College, subject, however, to the discretion of the Faculty.

GENERAL FACILITIES.

Important facilities for general improvement are offered to students, in the valuable libraries and museums of Boston and vicinity. Elaborate courses of lectures on scientific, social, and literary subjects are presented to the public from time to time. The most noted divines of New England officiate every Sunday within easy distance, and may be studied by the student in respect to their teachings and their methods. It is the policy of the school to encourage the judicious use of these important instrumentalities of culture.

COURSES OF STUDY AND DEGREES.

The Full Course for Bachelors of Arts occupies three years; for all others, four years. Special courses occupy respectively one, two, and three years.

The Degree of Bachelor of Divinity is conferred upon college graduates who sustain satisfactorily an examination on the studies of the prescribed course, and upon others, who, in the judgment of the Faculty, have made equivalent attainments. Diplomas certifying to attainments are conferred upon those who have taken in a satisfactory manner the Four-Years Course.

The Degree of Master of Arts is conferred at the same time with the degree of Bachelor of Divinity upon Bachelors of Arts of Tufts College who have pursued with distinction the full course for B. D. This degree is conferred under the same conditions on Bachelors of Arts of other colleges whose courses of study have been equivalent to the course for which the degree of A. B. is given by Tufts College.

Opportunities for pursuing advanced studies are offered to graduates, and to others sufficiently qualified.

ROOMS AND EXPENSES.

The rooms assigned to the Divinity students are in West Hall. Each study is provided with suitable furniture; and the bedroom adjoining is furnished with bedstead, bureau, and other furniture.

Tuition, room-rent, and use of furniture are free. The price of board is about three and one-half dollars per week. The necessary school expenses, including board, washing, fuel, light, and text-books, do not exceed two hundred dollars per year.

The General Convention of Universalists aids students by a system of loans; and those in the regular course who have shown sufficient maturity are permitted to preach, under the direction of the Faculty, during the year and a half preceding their graduation. In this way they may add to their pecuniary resources.

NEW BUILDINGS.

The new buildings, now in process of construction, for the special use of the Divinity School, will be ready for occupancy by the beginning of the College year 1892–93. Miner Hall, the gift of Ex-President Miner, will contain rooms for lectures and the use of the Faculty; while the new dormitory of thirty-six rooms will afford a separate apartment for each student.

SCHOLARSHIPS, ETC.

The Greenwood Scholarship. — The income of one thousand dollars, bequeathed by the late Mrs. Eliza M. Greenwood, of Malden, is given in prizes to members of the Divinity School for excellence in the department of Oratory.

For the year 1891 these prizes were awarded to William Best Eddy, Henry Reuben Rose, and Ralph Everett Conner.

The Dockstader Scholarships. — The income of ten thousand dollars, given by George A. Dockstader, of New York, is appropriated to the aid of needy and worthy students.

The Woodbridge Scholarship. — The income of two thousand dollars, given by Samuel F. Woodbridge, of Cambridge, Mass., is appropriated for the benefit of the Divinity School.

The income of the Vannevar Fund is used in the purchase of books for the Department of Homiletics.

Rev. W. S. Perkins, D. D., of Meriden, Conn., provides for an annual prize of twenty-five dollars, to encourage extemporaneous preaching.

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